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Thames in Flood.

THE floods, unexampled within the memory of the present generation, that have inflicted so much suffering on so wide an area of English urban and rural property, call on every one for sympathy with the victims. And they ask for more than sympathy,—for counsel and action in order to prevent a recurrence of these most distressing results. A great peculiarity of the late inundations has been the especial damage which they have inflicted on the metropolis itself. In some of those outlying colonies of England of which we know so little, towns and almost cities have sprung up, under the influence of the gold-digging fever, on places which have proved liable to overflow. Thus Greymouth, at the mouth of the River Grey, is situated below the ordinary flood level, and is now periodically under water. Hokitika, on the west coast of New Zealand, was laid out on a sandy area which proved to be a portion of the delta of the Hokitika river. Not many months after the commencement of the city, when streets had been laid out, and hotels and warehouses built, the river reclaimed its own, and made its main channel to the sea through the heart of the new city. We speak of these things as proofs of entire absence of due foresight on the part of the builders of these colonial works of life. And yet we are content, at least twice every year, to intrust the comfort and safety of a great part of our metropolis to the chance that an easterly wind may not accompany an equinoxial spring tide.

The damage done by floods is an evil as to the preventibility of which we have often remarked. No less than three distinct orders of consideration, of special interest to many of our readers, are involved. It is pre-eminently a builders' question, inasmuch as it concerns not only the selection of sites for building, but the protection of sites when selected. No less is it a sanitary question. At Lewisham the inhabitants complain that the furniture in their lower rooms has been saturated by a mixture, half of rain-water and half of sewage. In London itself the main drainage works appear, so far as we can gather, to have withstood very fairly the extra demand on their capabilities. The old evils of regurgitation and heading back of sewage appear to have been avoided. This is the more satisfactory when we reflect that, in the opinion of many persons competent to form a correct judgment on the point, it is a mistake to throw the storm-waters into the sewer. There can be no doubt whatever that a much larger capacity, both in the collecting sewers, in the main outfalls, and in the pumping machinery, than would be needful for the providing for sewage alone, is occasioned by this plan. On the other hand, this extra cost is not all in excess, as some cost would have to be incurred for a special provision for storm-water if this were excluded from the sewers. However, whether we regard the metropolitan drainage works as extravagant or not, it is matter of great satisfaction to find that they have not broken down under so great a stress as that thrown upon them by the excessive rainfall of January, 1877.

It is otherwise with regard to the protection of South London from the inundations which now have recurred with a frequency and fury unknown to the memory of man. The distress of a large number of blameless and suffering residents,—blameless, that is to say, in so far as the inundation is concerned,—must go home to any heart. By Friday evening (the 11th current), the Lord Mayor had received donations to the amount of nearly 4,500*l.* to be applied to the relief of these sufferers. A conference of delegates from riparian and other parishes and districts on both sides of the river was held at the Lambeth Vestry-hall on the 11th of January. The subject is urgent. It is one that admits of no delay. Every additional wet day,—it may be said and hoped,—brings us nearer to fine weather. Let us take it so. But, on the other hand, we must remember that all our subterranean lakes and stores of water are now full. They had been lowered, before the winter of 1875-6, pretty generally through the country. Even the summer floods can have done little more than restore them to their normal level. Now they must be brimful. The great chalk system of water supply, as to which we hope to hear good information resulting from the late discussion, illustrated as it was by splendid drawings, at the Institution of Civil Engineers, must now be in a condition for experiment such as has hardly been the case since Mr. Clutterbuck first sank wells to investigate the depths of water in the neighbourhood of Watford. The great pervious watersheds of the Wey, the Mole, and similar streams, in which by far the greater portion of the rainfall percolates and makes its way to the Thames valley under ground, are now so charged and choked with water, that the Wey has cut through its banks, at a point where the river makes a sharp turn at right angles to its normal course, and the torrent over the meadows that border the stream is more rapid, as well as far wider, than the ordinary course of the river. If such is the case in a soil usually thirsty and porous, it may well be anticipated what will be the case in those impervious soils which are the natural feeders, not of rivers, but of torrents; such as the valley of the Brent, which enters the Thames at Brentford. These are only two instances out of the many cases of tributary streams which, between the high ground near the Seven Springs, in Gloucestershire, which claims to be the cradle of the Thames, or the source of the Kennet, which has some claim to be considered as the parent stream, in Wiltshire, pour their united supplies into the channel, or, at least, into the valley, of the Thames. It must take many days for the vast floods of the 11th to subside, even if the rainfall be at an end. The least shower, even that which is naturally to be expected at this season, will send a fresh supply to reservoirs already brimming, and throughout London for many days the capacity of the river channel to convey the stream that fills it will be tested and probably strained. Under these circumstances, any spring tide will be attended with danger, and, if it be accompanied by an easterly wind, there is much reason to fear with disaster.

Under these circumstances, not only is it natural to ask what is to be done; but, still more, whose duty or whose right is it to act? On this latter question the law has, it seems, given divided and uncertain utterances. We do not affect to express a decided opinion on a question on which there is a legal doubt; but yet it should be stated that some reason exists for thinking that the riparian owners and occupiers are not altogether free from responsibility in the matter. Statutes special to the case may have modified the old common law. Nor, we repeat, is it our function or our will to lay down what that common law may be. But it would take very much to convince a dozen Englishmen that any proprietor of a wharf, quay, or riverside property, where the laying of a few courses of bricks on a wall, or along the edge of the stream, would be sufficient to keep back an overflow of water which, if once allowed to commence, would inundate acres of house property, would be within his rights in refusing any facility to persons authorised to carry out such precaution. Whether it be or be not a part of the tenure by which, implicitly at least, such property is held, to make it safe against any ordinary danger of inundation, may, indeed, be a moot point. The burgesses who fined the father of Shakspeare for leaving refuse in the kennel before his door would probably have made an example of any riparian owner who allowed his premises to afford means of egress to a spring tide in the Thames. As to that, it is possible that the case is clear,—it is possible that it may have to be fought out. But that the responsibility of in any way hindering the execution of such a plan would be heavy there can be no doubt. Whatever the law might say to it, the cries of hundreds of sufferers, submerged owing to the neglect, the perversity, or the stupidity of one or two riparian dwellers, would be heard in a tribunal before which none can shun to appear. The condemnation in the Court of Conscience, and in the opinion of all honest men, would be decisive. We trust that no resident along the banks of the Thames will hold back, at the risk of injury to a vast body of his fellow townsmen, until it is fought out in the Law Courts what is the exact pound of flesh to which he is entitled in the matter.

As it is, it is lamentable that the attention of the public should be directed to the quasi-scientific discussion as to who is most to blame. It may be all very well for the Metropolitan Board of Works to attempt to prove that they are utterly without blame in the matter, but the

arguments of their engineers do not go far to support this view of the case. The best defence of the Board of Works, against charges either of over action or of inaction—the only defence, in fact, must be that they have accurately fulfilled the functions imposed upon them by Act of Parliament. Had they made the northern embankment at their own will and discretion, it would be very intelligible why they should be anxious to convince the public, by any and by every available means, that this narrowing of the river had not augmented the inundation. As it is, we apprehend that the execution of a properly sanctioned work cannot involve the ministering body who executed that work in any pecuniary responsibility, although it may be quite clear that such a work had become a public nuisance. This would, indeed, be a stronger case than any which for a moment could be urged against the Metropolitan Board of Works. So far from this embankment being a nuisance, it is an advantage and a great adornment to London. But it is only one of a necessary series of works. It is one which, while it stands alone, has mischievous as well as beneficial results. No man who is a master of the study of hydraulics, unless he either holds a brief, or contrives to let his own wishes overpower the balance of his judgment, can doubt for a moment that the inundation of Lambeth was aggravated by the existence of the Thames Embankment. But we are not of opinion that it was caused by that work. It would have occurred, in our opinion, if the whole north shore of the river had presented to the eye the same expanse of fetid mud at low water that was to be seen twenty years ago. In so far as the work of the architect or of the engineer is concerned, it is a far greater improvement to London than the Thames Embankment that is mainly responsible for the extent of the recent inundation. The readers of the *Builder* will not need much information on this point. The number of those who remember the state of the Thames before the erection of the present noble structure of London Bridge is annually decreasing, but yet there must be many remaining who remember what a service of peril it was to shoot the arches of the old structure when the tide had ebbed to near its lowest. At all times, indeed, it was a matter requiring skill and experience on the part of the boatman to pass those narrow and numerous arches. Between piers, and starlings, and obstruction of arches by water-wheels, more than half the natural width of the river must have been blocked at this point. Such was the construction, that at low water there was an absolute cascade, of as much, Sir John Rennie tells us in his Autobiography, as 5 ft. in perpendicular height.

By the erection of the new bridge the waterway was at least doubled. The width from the face of the London to that of the Southwark abutment is, we believe, 780 ft.; out of which only 92 ft. are occupied by piers. There is thus an unobstructed waterway of some 690 ft., through which, when the tide flows in, an immense body of water is thrown up the river. London Bridge, in fact, can no longer be considered a gauge of the influx; or, if it be, it is a gauge of dimensions ample enough to allow the ingress of almost any amount of water that tide and east wind combined can drive up the river to its site. The ancient barrier of the bridge checked the incoming as well as the outgoing tide. In fact, it checked the former more than it did the latter; for the head, and therefore the impetus, which it gave to the land supply, enabled the river to force back the tide, and to allow of but little rise above the bridge, save that which was occasioned by the heading back of the river water. For this the wide area of the sloping shore afforded an ample reservoir. We cannot speak from personal recollection, nor are we at present aware of the exact balance of testimony as to the fact whether Lambeth was ever flooded while old London Bridge stood. But there is no doubt that floods have been, at all events, more frequent and more serious since its removal, so that the successive and repeated inundations of January, 1877, as well as the width of area which they covered, are without precedent either in memory or in record.

It is important that these engineering points should be clearly understood, because it is desirable that those interested should put their shoulders to the wheel without loss of time, in order to avoid a recurrence of the calamity, rather than seek to apportion blame in a case in which, after all, a verdict would at least partially lie, that the disaster was the "act of God." It is of course obvious that the gauge or constriction of the old bridge being removed, the relation between the body of water that is driven up at the top of tide, and the capacity of the river between Westminster Bridge and London Bridge assumes a new aspect. In the case of a slow and gradual rise of tide, the balance between the ascending and descending stream is tolerably exact. The former will be held in check by the latter. Whether the channel is broader or narrower makes no difference as to the height to which it will be filled, regarded simply as a question of hydrostatics. It is, accordingly, as a question of hydrostatics that one or two of the correspondents of the *Times* have regarded it, and their natural conclusion has been that the Embankment had nothing to do with the matter. But, unfortunately, the perfect placidity necessary to the conditions of a purely hydrostatic problem was entirely absent. It was not an hydrostatic but an hydraulic problem that presented itself for solution. It is needless to say that the arguments which held good in the first instance do not hold good in the second. The water that passed up through London Bridge was charged with a considerable momentum, and was urged from behind, by wind and tide, with a continuous and formidable force. What that force was might be ascertained if volume and speed, rate of tide and velocity of wind, were accurately known. Waters thus urged do not rest at a true hydrostatic level any more than do the waves of the sea when driven by the wind. They become piled up one on another, if any obstacle narrows their course. Thus it is certain that the abstraction of so many acres as the Embankment has redeemed from the area of the Thames, must have led to a piling up of the water to a height that could not otherwise have been obtained. Up the stream, past the bridge, rushed a given quantity of water, at a given speed. So long as the channel was adequate to the conveyance, a certain height would be maintained. Widen the channel, and that height would be reduced; narrow the channel, and it would be increased. As compared with the old channel, the actual river-course is considerably reduced. To precisely that extent has the height of the flow been increased. The fact is so obvious that we should ask pardon of our readers for supposing that they needed more than a hint as to such an elementary problem, were it not that names of some authority have been appended to arguments which ignore the difference between the hydrostatic and the hydraulic action of water.

What remains, then, is that with all speed we set to work in making safe the south bank of the Thames. All things considered, there is not an hour to be lost, if we wish to secure ourselves against disaster. Every one knows that the equinoctial springs are seasons of danger, and that if the east wind blows with the spring tide at that season, overflow is more than likely. A writer in the *Times* has called attention to another celestial phenomenon which bodes storm. The attraction of the moon is, of course, in exact proportion to the square of the distance of that planet from the earth. The varying measure of that distance, and therefore of that attraction, is denoted by the apparent diameter of the moon. A table of such apparent diameters, at new and full moon, may be taken from the Nautical Almanac, and will show that the occasions on which the east wind up the Thames, combined with spring tide, will produce inundation, are not confined to the equinoxes; and, considering the state of the land, the roads, and the proverbial impossibility of predicting anything certain as to weather, none of us can say that every spring tide in the next few months will be absolutely unattended by danger.

It is our hope that the gentlemen who have already met in conference on the subject will remember how large an amount of helpless and suffering population depends on their energy and good conduct. We earnestly trust that the settlement of any question of division of responsibility may be postponed to that of the most practical and efficient mode of executing the works required to insure absolute safety. There should be a personal canvass made of every riparian occupier, in order to ascertain what he will do for the protection of the property of himself and of his neighbours. In most cases, it may be hoped, the reply would be the expression of a willingness at once to do whatever a competent surveyor would declare to be proper. A contemporary has suggested that a guarantee fund should be subscribed, with the purpose of guaranteeing to such riparian occupiers the repayment of any cost they might incur in protecting the town which did not actually appear to be fairly chargeable to them. This seems an eminently practical suggestion. But it must be remembered that absolute union of action is indispensable. If ninety-nine river walls be complete, and the hundredth be omitted, the hundredth may give egress to a flood only measured by the area through which it rushes, and the time of its flow. If there are, as may very likely be the case, proprietors or occupiers who feel that they are incompetent to take the trouble and risk of superintending the proper closure of their own bits of bank, the committee should be enabled and instructed to take proper steps for performing such duty for them. What is the force of the staff of the Metropolitan Board of Works we are unaware; but the engineer will no doubt be able to afford valuable assistance, whether official or unofficial. What has to be done should be done at once. It can only be done in time by postponing the settlement of all open questions—by proposing a *modus vivendi*, or means of combined action of the nature above suggested, or of some equally practical and *bonâ fide* measure. If the work be at once grappled with in this spirit, Lambeth may laugh at spring tides and land-floods. If it be delayed, or quarrelled over, or discussed, or preached about, instead of being taken in hand, there are nine chances to one in favour of further disaster.

We have no room left in which to develope the third consideration at which we previously hinted, which is that of the effects of the floods on agriculture. Our readers will, we hope, do justice to the persistence with which we have remarked on the neglected and obstructed state of our river valleys; and on the sacrifice of the service of our streams, as means of irrigation and of drainage, to their mechanical utility as affording a motor power for the driving of mills,—a power that is now so frequently superseded by steam that the old objections to the reassignment of our general hydraulic system on true engineering principles have now lost their chief support. We have spoken of the loss of area of cultivable land entailed by the barbarous mode in which what are called water-meadows are usually irrigated, and of the loss to the country of the annual produce of at least a fifth of what ought to be rich and fertile meadow land. All this ordinary loss and waste is now increased to an extraordinary extent by a rainfall which, if our river systems had been under competent engineering direction, would have been an unmitigated benefit. By our neglect of the primary laws of economy and good sense we imperil our health, we endanger our dwellings, and we throw away a main source of wealth,—nay, we do worse,—we convert it into a source of impoverishment and disaster.

BYE-COMMISSIONS OR BRIBES.

IF ever the secret history of the Press comes to be written, the public may be put in possession of a clue to the mystery which, during the last few months, has affected, for good or ill, the reputation of great men and great journals. Rarely has a festive or silly season been heralded and accompanied by such a dearth of *bonâ fide* matter for comment or discussion as that which has just passed. Nor when it is remembered to what full-flavoured news the popular palate is accustomed, need there be any doubt of the supreme perplexity which is endured by the staffs of morning papers at a crisis of contradictory telegrams, reticent statesmanship, and padded correspondence. The pomp and circumstance of Delhi brought but small aid to the distressed functionary whom conscience whispered that, now, even elephants pall. The wrongs of a mediatised Nauwáb could not be effectively exposed to public sympathy between the Nativity and Twelfth Night. The comparative anatomy of the Colorado and the common beetle, though eminently suggestive of argument and contradiction, is still a subject of exclusive rather than general interest. Nevertheless, returning daylight has brought with it, six days in seven, the usual quantity of matter if not information; and as Fielding laid it down, our morning paper has contained the orthodox number of words whether it had news to communicate or not. Small correspondents have emerged from modest seclusion to provide the daily *pabulum*, and perhaps increase their own. "A Poor Vicar" ceased for a few minutes the

harassing cure of souls to calm metropolitan inquietude with a practical description of the theory of inundation. "A London Parson" came forward honestly and boldly, as parsons should do, to denounce the corruption of architects in general and church-restorers in particular. Other correspondents, with equal honesty and boldness, showed in a like manner that other professions were similarly corrupt; and a series of selected letters has been published at intervals to afford, such is the excuse, startling surprises, and, as it has turned out, to relieve the general dulness. But the Journal of the City, as the Parisians still call the *Times*, is rarely if ever dull. Even in recent flights of goody-goodyism and gush it is fresh and entertaining. Most of its leading articles are still the models of English that poor Prevôt-Paradol said they were, and they may be profitably studied on that account alone; while its private correspondence, both signed and anonymous, is invariably among the best of its kind.

All honest men must be thankful to the leading newspaper for having taken up the subject of bye-commissions, even in the inconclusive and half-sentimental method it has adopted in so doing,—a subject neither new nor startling to scholars, men of the world, men of business, and journalists. The case of Coe *v.* Sothern, in which the verdict was deplorable and unsatisfactory, was preceded by that of Rubery *v.* Sampson and Grant, the moral result of which was decisive and overwhelming. From the evidence brought forward in both these cases, the charge evolved was definite and tangible; but the charge brought against the profession of architects is neither one nor the other. We make due allowance, however, for the delicate position in which the law of libel places a journal and its correspondents; and we need hardly add that nothing would give us greater satisfaction than to assist in punishing those whose illicit acts disgrace an honourable calling, if "London Parsons," "Victims," and "Contractors," instead of being vague propagators of truth and slander, will state to us facts,—like men who sincerely desire to expose particular corruption rather than to gratify general spite.

For it is open to much doubt whether a correspondence like that upon "Commissions" can generate anything but bad blood between the players and helpless suspicion amongst many who look on at the game. Since the days of King David an indiscriminate attack upon human nature and human kind has been invariably accepted with complacent resignation by the world at large; and if the ancient poet still receives his periodical meed of praise for having said,—even in his haste,—that All men are liars, the modern journalist may yet be pardoned for having endorsed the statement,—even after the usual consideration of editorship,—that All architects are rogues. Disinclined as we are for many reasons to discuss the former proposition, in the face of it we are bound to admit the desperate and quixotic nature of any attempt to dispute the latter. It may, however, be advantageous to an accuser and salutary to an accused to learn what remedy is always at hand in aid and defence of the employer; and what penalty awaits the employed should he be proved personally "a rogue," instead of being merely gibbeted by irresponsible agency as one of a roguish fraternity.

Some seven years ago, at a meeting of the Royal Institute of British Architects, the then president, in his address, delivered at the opening of session 1870-1, half regretted that a larger number of practising architects did not belong to the Chartered Society; and we remember that Professor Donaldson, while proposing the usual vote of thanks, which was seconded by the conductor of this journal, made a remarkable statement. In justification of the limited number of members, absurdly small as compared with those of a kindred society, he declared that at the time when he became acquainted with the profession, nearly sixty years ago, there was a very intimate connexion between architects and builders. At that time Mr. Smirke and Mr. Soane were at the head of the profession, and not a word could be breathed against their honour and reputation. "But," said the Professor, "in too many cases the architects and builders shared in the profits." Soon afterwards a very grave movement took place, which resulted in the removal of an acknowledged scandal. That was the foundation of the Institute, which was incorporated by charter of William IV., in the year 1837; and was thereby empowered to make bye-laws for the regulation of the body politic and corporate, and for the admission of members. These were to consist of three classes:—"Fellows," "Associates," and "Honorary Fellows." The Fellows were to be architects who have been engaged as principals for at least seven successive years in the practice of civil architecture; the Associates were to be persons who had been engaged in the study and practice of the same for a less term, and who had attained the age of twenty-one years; the Honorary Fellows were to be persons unconnected with any branch of building as a trade or business. The election of these three classes of members is made upon the strength of bye-laws re-established in 1853, and re-confirmed, with some alterations, in 1866. Each Fellow and each Associate is required to sign a certain form, which constitutes a declaration of an undeniably binding character, as follows:—

"I, the undersigned, being elected a Fellow (or Associate) of the Royal Institute of British Architects, do hereby declare . . . . that I will not receive or accept any pecuniary consideration or emolument from any builder or other tradesman whose works I may be engaged to superintend; that I will not have any interest or participation in any trade, contract, or materials supplied at any works the execution of which I may be engaged to superintend," &c., &c., &c.

The violation of such a promise morally amounts to perjury; and leads, if the fact can be brought home to the offender, to expulsion from the Institute and consequent social degradation. Instances of such expulsion,—of such moral ruin,—are at rare intervals on record. That there are others in which the offenders escape conviction is necessarily probable; and it is not impossible that were the Legislature to recognise such a rule enforced by any chartered society a palpable benefit would accrue. Yet in the Law the degradation of a member of the Bar, or the striking off the rolls of a solicitor, is left to the judgment of coporate bodies; and the result is said to be satisfactory. At the same time it cannot be too strongly urged upon the Institute authorities that more care and circumspection than have been lately given to the admission of members is needed; and this is a necessity which both proposers and seconders of new candidates should bear scrupulously in mind.

There is one point to which we may just allude and with sympathetic delicacy; for, obviously, the difficulties attendant upon it are better understood by ourselves than by critical outsiders who have never mounted the scaffold of a new building. We do so, however, with a little hesitation, because the quotation, either in paragraphs or advertisements, of a particular sentence often favours, when isolated from the context, a view totally opposed to the general tenour of our meaning. We would call attention to the heedlessness with which many architects allow their own or their assistant's name to be associated with the "taking off" of "quantities" for buildings erected under their superintendence. Indeed, in spite of precaution, it often leads even estimable members of the profession into dilemmas unexpected and undeserved; while in some cases it lays architects who are gentlemen open to the uttered suspicion of vulgar magnates whom, often, a long and prosperous accumulation of commissions and bye-commissions has made their employers. The chartered society has done little yet in this vexed question other than to recommend and suggest. Perhaps it might advantageously pass a resolution to enforce No. 15 of its so-called "Rules for Professional Practice," which is now worded in the following manner:—

"When an architect supplies builders with quantities on which to form tenders for executing his designs, he should do so with the concurrence of his employer, and it is *desirable when practicable* that the architect should be paid by him rather than the builder, the cost of such extra labour not being included in the commission of 5 per cent."

Instead of the words we have italicised we would fain be able to read "*absolutely required*"; and we suggest that steps be taken at the first business meeting of the present session to promote conscientious execution of a wholesome rule, which might be made to form one of the conditions of membership to the Institute. At the same time there is nothing positively wrong in the provision by an architect of the "quantities" required for his own design to enable builders to estimate the cost of carrying it out; and the gentleman who wrote a note to the *Times* on this point in a tone of triumphant sneer had simply found a mare's nest. An architect who is wise, however, will for his own comfort avoid the practice, and leave it to a third person responsible to the builders.

It is some satisfaction to find that while the public representative body is provided with the requisite machinery, and prepared to take action in substantiated cases of bribery and corruption, private persons are actually engaged in a task of censure and discrimination; and this, if followed up, may yet lead to the exposure of some few doubtless, whose practices drag their respectable brethren through the mire of disrepute. Not many amateurs have served the cause of conscientious architects better than Sir Edmund Beckett. In his early "Lectures on Church Building," he said boldly that nothing tended more to lower the profession in the eyes of the public than the "auctioneer-like" system of paying architects by a percentage on the builders' contract. Many people heartily agreed with him, and remain of his opinion. "It is difficult," said he, "for architects of the highest class to escape altogether from the odium which is reflected upon the whole fraternity from the too notorious practices of the lowest class in the form of contractors' 'bonuses,' clandestine percentages on recommendations, &c." Nothing can be truer; and, as he afterwards insisted, the most high-minded of men, if he suggest an improvement in a building which is rising under his professional superintendence, is exposed to the same suspicion that an upholsterer excites who deplores the increasing shabbiness of window-curtains and furniture he is deputed to mend or polish. Two years ago* Sir Edmund argued in a similar fashion, and told an amusing story, if we remember rightly, for no report is printed of it, concerning "hassocks" and an architect's commission thereon, which may perhaps have lingered in the mind of "A London Parson," for he also pressed heavily upon hassocks. Indeed, the first person who came forward to extenuate and explain the sweeping charge he made was Sir Edmund Beckett himself; and throughout the correspondence his somewhat odd diction has been conspicuous in more than one signed communication. Indeed, the loose composition of the extraneous article headed "Commissions," which was printed last Saturday in the *Times*, is happily unlike the official utterances of that journal. It supplied, however, the correct answer, albeit a sentimental one, to the question, How the evil of taking and giving bye-commissions is to be overcome?—and that is by elevating the tone of the professions and trades implicated "to a point which will make them sensitive to the moral stigma of taking bribes." No doubt of it; and we may consistently ask people to reflect how this desirable result can be obtained. We know well the sort of encouragement which too long and only recently has been given to such an attempt by the arguments and assertions of *Quarterly* reviewers, leader-writers in the *Times* and other papers, professors of science, and self-styled "practical" men, who have exalted the workman at the expense of his professional master; have laughed at "soft-handed gentlemen"; and heaped ridicule,—easy enough to raise in a social atmosphere tainted with exaggeration and burlesque,—upon refinement, learning, and diligence when united, as now not unfrequently happens, in the person of a well-bred architect.

After all, perhaps, the best protest that honest members of the profession can make, the safest defence for the public to use, against the malpractices of individuals, is a purely sentimental one. From time almost immemorial this has been felt and written about. The researches of German and English scholars show that in Athens, even at the period of public splendour and private economy, intrigue and deception distinguished the commerce and industry of the Greeks; and that, in their trade, adulteration and short measure were matters of course. Nowhere is the system of exacting bye-commissions more universal or better understood than in India,—a fact that points to the antiquity of a custom which refinement and the modern conscience properly condemn. Both Hindú and Musalmán receive a trifle for any sum of money, however small, which passes through their hands. Native servants of

* At a meeting of the Royal Institute of British Architects, in the "Transactions" of which, through an evident misprint, Sir Edmund Beckett is made to attribute to M. Viollet-le-Duc "the maxim that an architect ought to know everything." Every writer upon architecture has discoursed in some fashion or other upon that attractive theme from the earliest times. A celebrated passage in Vitruvius, according to Newton's translation, runs as follows:—"The ancient architect, Pythius, who erected the magnificent temple of Minerva at Priene, says, in his Commentaries, that an architect ought to excel in all arts and learning those who, by their industry and practice, have brought things to the greatest perfection."

both creeds obtain a percentage upon everything they buy for their masters as well as a bye-commission from new-comers whom they introduce; and prefer a general claim to pecuniary recognition by all native merchants and tradesmen whom chance or regular business may bring in contact with the family they serve. Every one in India uses the common word, and recognises the fact, of which the French equivalent is *remise* among the lower orders; and, among the upper classes, is softened into *concession*. In Paris a cook,—*chef* or *cordon-bleu*,—exacts, with his or her master's knowledge, a sou from the tradesmen for every franc expended upon the purchase of victuals and provisions. During the Empire it used to be averred that some of the officials and even the chiefs of Government departments exacted thousands of francs on the same system and for the same purpose as a vile concierge received his tribute of sous from the mendicant, who was thereby permitted to exercise his calling inside the courtyard of a lodging-house. But of what use to continue or enlarge upon an old and a long-reiterated story? The language of Vitruvius is precisely that which is used by living Frenchmen and Englishmen who are honest as well as competent architects. "I have not, O Cæsar!" said the Roman, in his dedication, as it is believed, to Augustus, "endeavoured to obtain wealth by my art, having preferred a little with a good name to an abundance attended with infamy. . . . . Nor is it to be wondered at that I may be to many unknown; other architects solicit and make interest to be employed; but I have learnt from authors that it is proper to be requested, not to request, to be entrusted. . . . . What can we think must be suspected by him who is requested to entrust another with the care of his property, but that the other's gain and emolument is the cause of the request? . . . . I cannot blame those fathers of families who, confiding in their own knowledge, manage their buildings themselves; judging that, if they must be committed to the unskilful, it is better to spend their money according to their own pleasure than that of another. Hence it is that no one attempts to practise at home any other art (as that of a shoemaker, fuller, or others yet more easy) except that of architecture; because many who profess it are not really skilled in the art, but are falsely called architects." Now as then, in England and even in France, anybody,—auctioneer, speculating builder, commission-agent, picture-dealer, cemetery-statuary, or undertaker,—may write himself up architect; and while vestries, boards, and some companies, are principally composed of the stuff which is now especially their own, professional speculators will contrive to be of them, and abuse their position to further private ends. Nor is there reason to believe that such men would hesitate to tag "architect" to their names if it answered their purpose. Until some sort of status is afforded to the practice of architecture by the considerate demands of the public, and a diploma created by the co-operative energy of practitioners, there is little hope of ever entirely stamping out the corruption which the commercial followers of a mixed and heterogeneous profession necessarily do their best to sustain. But even as it is, the general supply of architects in London is of a kind superior to that which some worthy clergymen and wealthy landowners seem to require, if a correct judgment thereon may be formed from many printed advertisements and public utterances. The privilege of ruining by bad advice, and killing instead of curing, is not accorded to the public at large; and it will take a long time yet before people will thoroughly understand that the difference between good and bad architecture includes the preservation or injury of health and the lengthening or shortening of lives. The remedy for an unsatisfactory state of things lies in the institution of a certificate of examination, and the consequent introduction to the professional ranks of a better class of students. There are, and always have been, architects *and* architects; but there never have been in any British community gentlemen *and* gentlemen. We advise all those who are desirous of employing an architect to inquire, before choosing one, concerning his antecedents, his social position, and the state of mental culture which his language, manner, and works reveal.

But before entirely dismissing this subject a grave protest may be made against the mode in which the whole correspondence, affecting the good name of more than one honourable profession, has been conducted. It would be libellous for us to say that Mr. So-and-So is a knave, but no law of this country can touch an anonymous correspondent or member of a newspaper staff who declares, with the calm assurance of irresponsibility, that the profession to which Mr. So-and-So belongs countenances or sanctions knavery. No clergyman would dare to say openly to any one of the practitioners who have superintended the erection of our modern churches what it has been possible for a so-called London parson to say anonymously to the whole world. The colonist in America and Australasia has been gravely informed, with the connivance of a powerful newspaper, that the British architect not only claims his commission on the total expenditure from the employer, but also a bye-commission from the tradesmen he is employed to control, and that this is "an undoubted fact." The British architect may appeal in vain to every tribunal in the kingdom for redress. It is hardly worth while, however, to waste words over the periodical fits of insular morality which Macaulay noted,—rendering virtue outrageous, and society a ridiculous spectacle. Suppose, just for the fun of the thing, we introduced into one of those archæological stories which frequently find a place in the *Builder* a description of the English clergy during the last century. Take the "Essay on the Fates of Clergymen"; and great historians have not refused to seek in the pages of Swift a confirmation of the clerical debasement which marks the eighteenth century. There will be found a description of Corndoses, "who got into holy orders, and was recommended for chaplain to some noble houses, by which his revenue (besides vails) amounted to 30*l.* a year." The quotation is useful, as showing how, through professional refinement and public discretion, the Church has risen from the slough in which it was sunk about a hundred and fifty years ago; and it may serve to encourage another equally liberal profession to aim at similar improvement. "Some time after," in Swift's words, "a country living fell in my lord's disposal," and it was bestowed for certain reasons on Corndoses. "He had a select number of poor constantly attending at the street door of his lodgings, for whom he was a common solicitor to his former patroness, dropping in his own half-crown among the collections and taking it out when he disposed of the money." My lord continued his graces to Corndoses, and ultimately gave him a parish in town, whence he was promoted to be a dignitary of the Church. "He paid his curates punctually, and partly out of the communion money"; and having married a citizen's widow, he "sold the clerkship of his parish by his wife's dexterity." Suppose that, strengthened by this narrative, we presumed to "believe" in the "undoubted fact" that dignitaries of the English Church habitually practised the aforesaid habits and abuses in the year of grace, 1730.

Again, take another case of a similar description affecting another profession as honourable as our own. Let us refer to Thackeray's description of Mr. Bludyer, and a truer or better gentleman who coloured but never burlesqued his characters, has not breathed than the author of "Esmond." Here was the story of one of considerable talent and no principle, who would write a page of praise or abuse of any man living on any subject or on any line of politics. The occasion was momentous; the introduction of a new *prima donna* (Mrs. Walker or "The Ravenswing") to the world of fashion, including gentlemen of the theatre and of the press. The presence of a tailor who was a friend of the forthcoming *débutante* annoyed Mr. Bludyer, and the latter hinted aloud that Mrs. Walker was a poor singer:—

"Then, sir," said Mr. Woolsey, "I'll thank you to pay me my little bill."

"Are you a relation of Mrs. Walker's?" said Mr. Bludyer to the angry tailor.

"What's that to you, whether I am or not?" replied Woolsey fiercely. . . . . You sha'n't humbug me any more, sir; you shall hear from my attorney to-morrow."

"Hush, my dear Mr. Woolsey," cried the literary man; "don't make a noise; come into this window. Is Mrs. Walker *really* a friend of yours?"

The answer was in the affirmative; and, after a word from Mr. Bludyer, the anxious tailor, trembling under the weight of his assumed intrepidity, offered to say nothing about his little bill. But Mr. Bludyer was not to be frightened from his duty; and mind, too, he could write a slashing article as well as any man in England: he could crush her in ten lines. Then the tables were turned, and the tailor was alarmed. He was willing to apologise. "I say—come—let me take your measure for some new clothes, eh! Mr. B.?" "I'll come to your shop," answered the literary man, quite appeased. Presume then, as we said before, that backed with Thackeray's satirically true story and the recent disclosures which Lord Salisbury ordered to be printed for the public safety, "A London Architect" addressed a letter to us expressing his "belief" in the "undoubted fact" of newspaper writers claiming, besides their usual honorarium, little attentions and pecuniary courtesies similar to those which passed between Mr. Bludyer and Mr. Woolsey. It is needless to say that we should decline to publish such a letter even if it were the *bonâ fide* production of one in whom the utmost reliance could be placed, or emanated from the very highest of the architectural profession. It is necessary to be precise and even persistent upon this point in face of the licence, savouring of two or three generations ago, which is assumed by some newspapers and condoned by the more curious and thoughtless of ephemeral readers. Nor does this attractive kind of literature appear to be generally unattended with popular satisfaction. Similarly constituted periodicals came in with the year; more are announced, and others are likely to follow, if advertisements offering capital for the purpose mean anything. Weekly prints of twenty-eight days' existence coolly style established journals of thirty, fifty, and more years "our contemporary"; and wield the pen as if the exhibition of their own virtues,—literary, not social,—required a foil in the embittered review of a colleague's, perhaps but recently a friend's, errors. Against these, and practices such as these, rendered fashionable and amusing, newspapers with names and credit to lose may fitly make a stand; and we are constrained to think that, in the hurry to shine amongst a host of lesser lights, a great journal,—until recently the absolute echo of English opinion,—has too loosely condescended, by the publication of indiscriminate charges affecting the integrity of a large number of estimable men, to emulate a practice which its cheaper and rapidly-advancing rivals seem to have wisely abandoned.

THE DATCHELOR SCHOOL BUILDINGS AT CAMBERWELL.

THE new endowed middle-class schools for girls, established by a scheme recently issued by the Charity Commissioners, under the will of the late Miss Datchelor, will be opened next week. It may be remembered that this lady, who died many years ago, left by her will a certain sum of money for the purpose of keeping her vault in the church of St. Andrew Undershaft in repair, and likewise a bequest for educating the daughters of residents in that parish, but that, owing to the constant removal of families from the City, there have been comparatively few girls to educate, and the funds have accumulated to something like 50,000*l.* This being so, under a scheme drawn up by the Charity Commissioners, large and handsome new school buildings are about to be erected at Camberwell for the education of 300 girls belonging to the middle class, the daughters of persons connected with the City of London having priority of admission. Alderman Cotton, M.P., the late Lord Mayor, is the chairman of governors under the new scheme. The mansion and grounds which have been purchased for the new foundation schools are situated between Grove-lane and Camberwell-grove, and pending the erection of the new school buildings, the mansion has during the past few months been undergoing extensive internal alterations from designs furnished by Mr. T. Chatfeild Clarke, architect, in order to adapt it to the purposes of the school. It is a large and convenient building, and the interior, as re-arranged, will have accommodation for about 150 pupils. In addition to a spacious basement the mansion contains three stories besides the ground floor. The area of the stable and coach-house, and yard adjacent, have been laid out as a recreation-ground, the former being fitted as a gymnasium. The contractors for the works are Messrs. Colls & Sons, of Moorgate-street and Camberwell.

The land purchased for the permanent schools and grounds covers an area of nearly five acres. The new schools, which will have their principal frontage to Camberwell-grove, will be shortly commenced. Mr. Chatfeild Clarke is the architect.

The Temple of Diana at Ephesus.—On Monday evening next Mr. Fergusson will read a paper on this subject at the Institute of Architects.

TITIAN.

IN the course of last year we noticed at some length a new biography of Michelangelo; and now another of the great figures of the grand age of painting is delineated afresh for us by two writers whose names will be inseparably connected with the modern literature of art, and who bring to their task an extent of detailed knowledge of the history of the subject such as few contemporary students of art-history can lay claim to. There is an important distinction, certainly, between the scope and aim of the two books. Mr. Wilson's work on Michelangelo was rather a study of his character as artist and man, read by the light of special research and of newly-discovered documents, than an exhaustive biography. The two thick and goodly volumes of Messrs. Crowe and Cavalcaselle,* on the other hand, though based in some degree, especially as regards the history of the painter's family, upon new or unused material, are intended obviously as a complete *resumé* of all that is known or can now be known in regard to the personal history and character of Titian, and as in fact superseding all previous biographies.

Nor can it be said that such a claim is over-exacting, especially as regards works written in English. The authors in their preface pay a graceful compliment to Mr. Josiah Gilbert's charming book on "Titian's Country," which we noticed fully at the time of its appearance, and which relieves the barrenness of English literature on this topic; but Mr. Gilbert's book, of course, takes in only one phase of the subject, and beyond it there is nothing worth naming from a literary point of view. And Messrs. Crowe and Cavalcaselle's book seems as complete in its plan and execution as such a biography could well be made within conveniently readable limits. The family descent and connexion of the painter, the nature of the political and social life by which he was surrounded, the phases through which his art passed, the influences under which it was matured, and the relation in which it stands to that of his greatest predecessors and contemporaries, are interwoven with the attainable historical facts in regard to his life and character, and with a critical analysis of his principal productions, in such a way as to render the work a complete and continuous narrative, only slightly interrupted now and then by passages of a purely critical nature, which, however, link themselves more or less with what precedes and follows them. The construction of such a biography on this model involves a great deal of difficulty in keeping the balance of all the details; and perhaps the authors have not always been quite successful in this, and it may be open to question whether the political passages of the history, in which events are regarded from so different a point of view and on such a different scale from those which concern personal history only, had not been better, for the sake of clearness, kept a little more decidedly separate from the personal narrative. Some slight lapses of style, construction, and punctuation which we noted here and there might advantageously be amended in a future edition, but they are not such as to be of any importance. The sense of dissatisfaction with which almost every reader keenly interested in the genius of Titian will be likely to lay down the book is connected with no deficiency that can be reasonably charged upon the authors. Independently of another cause to be noted just now, such a feeling is inseparable from the perusal of a biography in which we constantly have to lament the loss, through lapse of time and untoward circumstances, of facts and evidence absolutely necessary to render the portrait complete. In spite of the acknowledged learning and research and the evident industry of the biographers, we scarcely feel that anywhere in the book we really get the man Ticiano Vecelli face to face with us. So many blanks are left, which we cannot hope at this distance of time to see filled up,—so slight and far between seem the reliable indications of his character and personality apart from his works,—that the impression is like that of the vision of the wizard Michael Scott in the poem,—

> "Some saw an arm, and some a hand,
> And some the waving of a gown";

the latter incident, indeed, seeming peculiarly *apropos*, for throughout the life of the great Venetian painter there runs an indefinable sense of sumptuousness of costume and surroundings, derived partly, perhaps, from our associations with Venice and her richly-robed "magnificences," but with a certain adequate basis, too, in what we know of the tastes and habits of the courtly painter himself. For the great period of Venetian art, whether we consider its characteristics generally, or as they are summed up in Titian, its supreme representative, was essentially the art of luxury and self-indulgence, and of the fulness and satiety of a wealthy civilisation. The connexion which this characteristic of the age obviously has with the art of Titian is one of the first things noticed by his biographers, who remark (p. 15) upon the questionable pre-eminence which Venice enjoyed in regard to facilities for loose and luxurious living; the Queen of the Adriatic having in this respect, whether rightly or wrongly, carried off the palm of vice; "and we shall see that bacchanals, or portraits of courtesans in gallant undress, were painted by celebrated masters at Venice long before such a thing was thought of in other parts of Italy. We may also observe that the poetic platonisms of Bembo and the fiery strophes of Tasso have a background of a common and unethereal sort, which is distinctly repulsive; whilst the shameless confessions of a scribe like Aretino tell of a corrupt morality which bore its fruit in the profligacy of the sons of Titian and Sansovino."

To the brief but interesting sketch which is given of the career of Venetian art previous to the age of Titian, we can here merely allude; the sum of it results in the impression that the painter's art there was curiously slow in development in the first instance; helped forward, indeed, greatly by the Bellini and their school, but blossoming almost suddenly and unexpectedly into its characteristic luxuriance at the time when Venice, losing to some extent her mastery over the seas, was extending her arms and influence by land, and thereby drawing towards her, as a social and political centre, a variety of artists from various schools, each of whom contributed something to developing that full, rich, and varied colouring which was to form the special note of the Venetian school, slow to master the process of oil-painting, but ultimately using it in the production of a rich and full style of easel-painting, for which the more limited capacities of tempera were in the end almost abandoned. Among these immediate forerunners of Titian the most prominent name is that of Palma Vecchio, whose close connexion in style and feeling with the greater master is well known; indeed, it is mentioned that they drew from the same female models for years. But Titian's earliest experiences in life seems curiously at variance with the splendour of his subsequent career. From his poor and primitive home in the hills of Cadore he was sent down into Venice,—"the city of enchantments,"—to the care of a relation, "to learn a trade," for so the apprenticeship in a studio was then regarded. "And here Venetian history leaves him, taking no heed of his life or doings until he issues from the throng of competitors, and appears a master at the Fondaco de' Tedeschi." All that can be certainly concluded in regard to his early training was that he was in close proximity with, and much influenced by, Giorgione, and in a lesser degree by the Bellini; but in some remarks further on, the authors express what there can be little doubt is a correct opinion, that Titian cannot be regarded as the pupil or artistic descendant of any *one* painter: he must be regarded rather as having gathered up into one great and many-sided style the lessons and precedents derived from his immediate forerunners; bringing to one focus, as it were, the leading characteristics of the art of his period, and superadding a power and brilliancy derived from his own intellectual insight and rare facility in handling the materials of his craft. Of the general conditions under which his earlier style was developed the authors give some suggestive hints, gathered from an application of their knowledge of the status of Venetian painters in the first-half of the sixteenth century to the illustration of the position of their predecessors at the turn of the previous age. The conclusion is, that painting was then "the business of some great masters, and of countless mediocrities. . . . The taste of the Venetian public was not yet trained to the appreciation of subjects of a domestic or homely character, and a steady demand could only be said to exist for pictures 'devout, finished, and carefully wrought.'" But the Venetians were fond of decorated house-fronts:—

> "The contract for building a house often enjoined its adornment with frescoes, and a large palace in a conspicuous position might, if tastefully painted, secure to a young man a number of useful and able patrons. Yet it seldom happened that a direct connexion united a painter to a wealthy patrician; and it frequently occurred that the architect employed, at a low remuneration, the labour of an artist, whose work was highly charged to the noble owner of the mansion."

The latter sentence may be quoted as a useful hint to modern members of the profession anxious to feather their own nests; but the immediate interest of the subject is in the fact that one of the earliest references to Titian professionally connects his name with the decoration of a house-front,—an interesting fact in the history of painting regarded on its decorative side, though singularly at variance with the nature of the artist's subsequent career.

Of this career we may just recal the main outlines as presented to us in this fully-treated biography. One of the first important incidents we come upon, after the early period of which little or no record exists, is in reference to the connexion of Titian with the Fondaco de' Tedeschi, now a public office near the Rialto Bridge,* but in Titian's day a building set apart for the residence of foreign traders in Venice, ostensibly for their convenience, perhaps, but in reality that they might be under the eye of the Government spies, who held all the permanent salaried offices connected with the establishment. The foreigners could only do business through a State broker, and were not allowed even to choose their own. The connexion of Titian with an establishment apparently so removed from artistic interests arose partly from the fact that the brokers' appointments were regarded as prizes which could be made, practically, profitable sinecures, by being farmed out or sublet to men who did the real business, while the ostensible owner of the place received a large section of the profits; and on this footing Titian and Bellini were both brokers in the Fondaco. During the commencement of Titian's career, the Fondaco was rebuilt, and decorated externally with wall paintings by him and Giorgione, traces of which are still faintly visible, and are assigned by tradition to one or other of the two artists. The probable influence of Dürer on the next stage in Titian's artistic progress,—and, indeed, upon Venetian painting generally,—is a most interesting subject, which might well form matter for a separate study. In general the authors are disposed to think that Dürer's influence, if it were not very permanent, at least retarded materially the progress of the great Venetian painters toward the neglect of line, and the almost exclusive attention to surface, colour, and modelling, which became characteristic of their art; and they quote an anecdote told by Scanelli, who wrote in 1655, which, as they observe, whether true or not in detail, gives indication of the decided influence of Dürer on Venetian art, and connects this with the style and manner of one of Titian's most remarkable works,—the "Christ of the tribute-money":—

> "Titian was visited on a certain occasion by a company of German travellers, who were allowed to look at the pictures which his studio contained. On being asked what impression these works conveyed, they declared that they only knew of one master capable of finishing as they thought paintings ought to be finished, and that was Dürer; their impression being that Venetian compositions fell below the promise which they had given at their first commencement. To these observations Titian smilingly replied, 'that if he had thought extreme finish to be the end and aim of art, he too would have fallen into the excesses of Dürer. But though long experience had taught him to prefer a broad and even track to a narrow and intricate path, yet he would still take occasion to show that subtlest detail might be compassed without sacrifice of breadth,' and so produced the Christ of the Tribute-money."

The anecdote has the air, perhaps, of having been invented to account for the peculiar finish of a work which in this respect stands almost alone among Titian's productions; yet it not improbably has a foundation of some kind, and is in that light significant.

The precise date of this typical work the authors make no attempt to fix, but it was before his visit to Padua in 1506, where he remained till 1511. The city of Mantegna does not seem to have inspired Titian with any spirit of emulation; on the contrary, he carried out his commissions there to a great extent by the help of an assistant, and with an ill-concealed indifference as to doing his best for a provincial town: such, at least, is our authors' conclusion from

* Titian: his Life and Times, with some Account of his Family, chiefly from new and unpublished Records. By J. A. Crowe and G. B. Cavalcaselle, authors of the "History of Painting in North Italy." London: John Murray.

* "On the Rialto," the authors take occasion to point out, does not signify, as is often supposed, on the *bridge* of the Rialto; but on the open space or Exchange, so called, and from which the bridge was named.

the manifest inferiority of his work there in fresco decoration. "The questions presenting themselves for consideration might be these. Was it worth while to paint conscientiously in a provincial town; was it necessary to do the best for a price not the best? It is difficult to determine in what way Titian would have answered these questions had they been put to him,"—a conclusion little flattering, one may say, to the painter's character, but certainly not very unjust to him, looked at by the light of certain other facts in his life. The records of his stay at Padua furnish some documentary evidence as to the manner in which work was carried on, and the price of artistic labour. In 1512, probably, he is back in Venice, with a clear field, almost, before him, through the death of Giorgione and the inability of Bellini to accomplish all that was demanded of him; and it seems reasonable to suppose that he brought away from Padua a fruitful influence on his own genius from the great works of Donatello and Mantegna which he had there studied. It was in 1513 that his offer was made to paint a canvas in the Hall of the Council of Ten,—a demand couched in a strain of high artistic and patriotic enthusiasm sadly at variance with some traits which become prominent in his later years. Being "desirous of fame rather than profit," and to serve the Doge and Signori rather than the Pope, he expresses himself "anxious, if it should appear feasible, to paint in the Hall of Council, beginning, if it please their sublimity, with the canvas of the battle on the side towards the piazza, which is so difficult that no one as yet has had courage to attempt it"; and asking only in return for the broker's place in the Fondaco (which, as observed, he afterwards held), and certain other stipulations, which were all granted. Of the battle which ensued between his partisans and those of Bellini, and his various shiftings backwards and forwards, in and out of favour, an account is given which illustrates in an interesting manner the trickery and underhand nature of the social and official life of Venice. Then we come upon his connexion with the Court of Ferrara, whither he went for some little time to paint commissions for Alfonso of Este, then the husband of Lucrezia Borgia, of whom one would naturally expect to find a portrait by the hand of Titian, which, however, is not known to exist. To this period, but painted on his return to Venice, belongs the celebrated "Assumption of the Virgin" in the church of the Frari at Venice, in which city he was now become "a public man in every sense of the word"; an honourable position which he had the pleasure of realising in various ways, among others, by the receipt of a curt summons before the authorities to give account why he had never finished the canvas in the great hall, and the information that, unless he began to work at it within a week, and laboured continuously till its completion, "their magnificences" would cause it to be painted and finished at his expense. Titian seems now, however, to have been in a position to disregard even so awful a threat as this; and his entire neglect, for a long period, of the work which he before asked, in such patriotic and high-minded language, to be allowed to perform, is one of the many instances, to which it is impossible to be blind, of the spirit of trade in his art which appears to have taken possession of the artist when his success was attained. He seems to have been independent in his treatment of clients (when they did not happen to be royal or noble), not so much from a spirit of pride or self-respect as from a perception that he could now always insure his own terms, and if he did not care for one commission he could be sure of a better one elsewhere. Other visits to Ferrara and one to Mantua in 1519 and 1523 and 1524, show how his practice had quite ceased to be confined to Venice, though he seems to have been rather averse to travelling about, partly on account, as he himself is reported to have said, of the difficulty of obtaining at other places the peculiar type of female model which he was used to paint from at Venice, and without which he seemed to have lost part of himself. Of the story of the Duchess of Ferrara having offered herself as a model for a Venus, in response to the painter's complaints about his difficulty in this respect, the authors say nothing, and we may conclude that they consider it apocryphal. It is to the period of one of the Ferrara visits that the "Bacchus and Ariadne," now in our National Gallery, is attributed; of which glorious painting, by the way, the authors give a small outline engraving which had been better omitted, since even the outlines, which might at least have been correct, are a travesty of the original. From 1527 dates Titian's acquaintance with the notorious libertine poet, Pietro Aretino, with whom he continued on intimate terms till the death of Aretino, whose friendship can have had no elevating influence upon him, and of whom the authors observe that "his knowledge of courts had taught him to flatter the self-love of princes, and he now imparted to Titian the secret of that flattery, subject to showing him later how the fruits of flattery might be garnered;" a lesson which Titian showed himself only too willing and able to learn. In 1530 came the competition with Palma Vecchio and Pordenone, which was to produce the great work of Titian's life, the "Peter Martyr," for which preliminary sketches of each artist were exhibited; one instance in which a work of the highest order was the result of a "competition." Titian took years to finish the work, and "quarrelled with the brotherhood" of monks for whom it was painted as to the price; and in this instance, certainly, we may say that he might have been justified in putting almost any price he could obtain on such a work. The authors express a strong opinion, derived from the presumable history of Titian's movements at this period, and the internal evidence of this picture, that in painting it he was much influenced by the genius of Michelangelo; though, as they truly observe, "he was Michangelesque without ceasing to be Titian, and this is a proof of the greatness of his genius."

In the same year in which this great achievement of his art was realised, we hear of a wife and of the birth of a son (Pomponio) to Titian; a son whose future life was to prove a melancholy commentary on the teachings of a society in which what the late Lord Lytton would have called "The Beautiful" (with capital letters), was followed, to the entire neglect of "The Good." Of the name and family of the wife, and the precise date of the marriage, nothing seems to be known; but Pomponio was the eldest son, and as the wife died not long after his birth, the painter's married life was probably a very brief one. In 1532 commenced the connexion of Titian with the ruling house of Spain, dating from the time when Charles V. saw at Mantua Titian's portrait of the Duke "of that ilk," and expressed a wish that the artist should paint his own likeness; and from this time to his death, in 1576, he seems to have had no difficulty but that involved in satisfying the demands upon his time and genius made by the greatest personages in Europe. In glancing over the remainder of this brilliant life, we just notice the episode of the painting of the "Battle of Cadore," in the Hall of Council at Venice: that well-known composition of which only sketches remain, but which must have been one of the most powerful of all the artist's productions; and which, it is noticeable, is the record of the defeat by "The Signora" of the predecessor of the very emperor to whom at this time he was owing all his greatest wealth and honours. Concerning the real meaning of this picture there seem to have been doubts, owing to the painter's intentional selection of conventional antique armour, whereby the real historical purport of the composition was veiled to the uninitiated, though well understood by those most concerned in its meaning; for of the really historical intention of the painting the authors think there can be no doubt, and even say that there is no difficulty in fixing the part of the landscape at Cadore which Titian intended to represent. Among the other incidents which form landmarks in his later career, are his visit to Rome in 1545, and that to Augsburg in 1548; and the authors picture to us the old man of seventy, with yet many years of splendid labour before him, "setting out on a long and tiring ride in the heart of winter, crossing the Alps in January, to take up his residence in one of the coldest cities of Southern Germany." It was on this visit that, as he passed through Cenoda, Titian bore with him a letter of introduction to Cardinal Madruzzi, in that city, given him by Count Girolamo della Torre, which reads like the credentials of a plenipotentiary of the highest rank, and furnishes proof of the kind of estimation in which he was held:—

"I hear," says Della Torre, "that your Lordship has left Rome and returned to the Court of his Majesty. I therefore take this opportunity of presenting to your Lordship Titian the painter, the first man in Christendom, whom I ask you to treat as you would treat myself, and who is coming at the Emperor's bidding to do work for his Majesty."

Aretino describes the excitement occasioned at Augsburg by the arrival of Titian, when his house was almost besieged by crowds demanding canvasses and panels, or any specimen of his art that was to be had.

The "work for his Majesty" was, in the first instance, the equestrian portrait of Charles, now in the Madrid Museum, on the progress of which Titian wrote to his friends with much interest from Augsburg, and on one occasion, having exhausted his colours, begs Aretino to send him half a pound of lake *cum instantia*, by the first Imperial messenger; from which we may gather that materials fit for Titian's workmanship were not to be found in the Northern capital. On a subsequent visit to Augsburg, he was mainly occupied in painting the sombre features of Philip II. as Emperor elect, and to the close of his life is continually employed on pictures for this powerful but exacting client. The last scene of his life is in sharp contrast to the splendour of his latter days. He died of the plague on August 27th, 1576, "in the midst of a population stricken with terror and heartless from panic." The regulation forbidding the burial, in any of the city churches of Venice, of a victim of the contagion, was, indeed, at once set aside in his case, and in the midst of the tumult and terror he was carried in procession to his tomb in the Frari Church. But immediately after, his son Orazio died of the same disease, not in his father's house, but in the Lazzaretto Vecchio, near the Lido; the house was left empty and neglected, and thieves broke in and carried off many precious relics, never to be recovered. A sad and strange anti-climax to the splendid intellectual life with which the dwelling had so long been filled.

No detailed or deliberate critical analysis of the genius of Titian, or of his works taken collectively, is offered in this biography; the reader is left to make this estimate for himself; but various critical observations in connexion with some of his greatest pictures serve to indicate sufficiently the view which the authors take of their subject, and at the same time include much that is very suggestive to the reader inclined to pursue the train of thought which the consideration of such works gives rise to. That Titian is the greatest master of easel-painting,—the greatest *painter, par excellence*, that the world has ever seen,—no one who has any title to an opinion on the subject will, we apprehend, for a moment question. The evident conviction of Messrs. Crowe and Cavalcaselle on this head does not, however, prevent them from clearly perceiving that this very supremacy in the qualities that are peculiarly characteristic of the art of the colourist is consistent with, if it does not even imply, a certain limitation in other directions; in regard, for instance, to conception and realisation of form. The following general remarks on this topic seem to us very well and significantly put:—

"We look in vain throughout the annals of art for a man who combined all the excellencies discernible singly in Lionardo and Raffaelle, or in Michelangelo, Coreggio, and Titian. To paint like Titian required Titian's peculiar talents and means; it required that colour should be made a speciality. To draw and render form chastened and select as that of the Florentines demanded an education of another kind, which should make colour subordinate to design. Light and shade, as pitted against each other by Correggio, were only attainable by one who gave himself up exclusively to the attainment of them. There never was a genius more universal than Raffaelle, or one more fitted by nature to combine all the highest and best elements of art; yet Raffaelle is not a colourist. Del Piombo, who came to Rome with the impress of Venice in his manner, gradually lost his originality in a grand but palpable imitation of Raffaelle and Michelangelo. His opinion was transplanted to Venice with that of Buonarotti, and set up as a text over the door of Tintoretto, but it failed to produce the expected ideal; and it would have been utterly vain to hope that colour, after the Venetian fashion, and design in the grandiose style of the Classics and the Tuscans, could amalgamate; the base and elements of both being altogether different and incapable of assimilation. The trial was finally made by the eclectics of Bologna, and every tyro knows with what result."

But while Titian has not the wonderful power over form possessed by Michelangelo and Raffaelle,—while he is even subject to criticism for palpable defects of drawing, as in the St. Andrew of the "Assumption" picture, and in others of his greatest works,—we think it must be conceded that as an executant he makes a nearer approach to complete and all-round power than any one else; and, as the authors observe, his later works "afford also innumerable proofs of an enviable power to execute at the same time pictures technically different in handling"; and equally extraordinary was his power of assimilating to his own style qualities suggested by the works of others, while keeping entirely clear of mere imitation; a power eminently characteristic (in every branch of art) of the highest order of genius. His bold manner of painting a picture for its position, regardless of its effect while on the easel, is alluded to in several instances, and in the "Assumption"

picture it may be said that he even painted the foreground pictures for their position *in the picture*; "he made his foreground broad and undefined, the figures on it supernaturally large; the sward a blur of colour, the details lost in wide sweeps of shade and a cunning generalisation of masses:" and by this means he brought into its right focus in the picture the central celestial group, in spite of its greater perspective distance from the eye; a piece of management which the authors very suggestively compare to the natural results of photography, where the foreground details are seen blurred and enlarged, while the principal object in true focus is distinct though smaller in scale. As to the general scope of Titian's genius, apart from such specialities, the comprehensive view presented by such a biography as this goes to confirm the idea which most persons who have thoughtfully studied his works will probably have entertained, that they represent the fulness and vigour of the intellectual as distinguished from what may be called the spiritual element in art and in human life. Of spiritual elevation of tone and depth of pathos we can hardly say that there is much trace in Titian: and although what his biographers say is true, that in his treatment of religious subjects he at once soared "beyond the limits which usually confine religious painting," it is equally true that he never seemed to realise the pathos and solemnity of some of the subjects which he undertook to illustrate. His picture of "Christ mocked by the Soldiers" is one which we call absolutely cruel in feeling, in the total indifference with which it is treated purely as an opportunity for the display of composition and action in a powerfully conceived group of figures: it is evident that the splendid figure of the man in armour, who kneels with his handsome profile half turned to the spectator, was as interesting to Titian as the agonised form of the sufferer in the centre of the group. On the other hand, it would be quite incorrect to attribute mere sensuousness to those of his works which might to a superficial criticism appear specially sensuous in subject. That his many "nudes" (of which there were evidently many more repetitions than are preserved) were commissioned by such patrons as Philip II. from very questionable motives, is probable enough; but the intellectual energy of the painter's character as an artist leaves no room to suppose that his own interest in such achievements was of so low a kind: nor can it for a moment be said that they possess a merely sensuous, to the exclusion of an intellectual, interest. Such works as the "Venus and Adonis" and the glorious "Bacchus and Ariadne" of our Gallery, are, in fact, typical representations, in form and colour, of impulses which lie at the root of the whole course of human life and human feelings. Perhaps a still more typical instance is the beautiful painting in the Borghese Palace, which used to be known as "Earthly and Heavenly Love," but of which the biographers indicate the real meaning with much more evident truth in their title, "Artless and Sated Love"; perhaps we may suggest that "Virgin and Matronly Love" would be still better, as indicating the intellectual meaning of the work, which completely transcends its mere sensuous beauty, remarkable as this is.

The feeling of dissatisfaction which, as we observed, this biography leaves on the reader's mind, arises not only from the meagreness which we remarked upon in the records of Titian the man, but still more from the undeniable fact that these records, so far as they go, do anything but raise him in our estimation. Of the probably very lax and self-indulgent character of his life it is easy to draw conclusions, though nothing is directly said on this point; and it would be unreasonable to make any special reproach against him for a looseness of morals which was all but universal in the society in which he lived, where depths of sensuality existed far below anything in which Titian was likely to have been implicated. More distinctly disagreeable features are his sycophancy and his avarice, which seem to crop out everywhere, and more especially in his later life. He addresses such a crowned scoundrel as Philip of Spain in language which it would be painful to read, from so great a genius, even towards the best and most virtuous of monarchs. His "greatest happiness is to find that his works have met with approval from so great a king." Having received no answer in regard to some paintings he had sent, he greatly fears either that they have not been satisfactory, or that "your servant Titian" is no longer in favour as of old. Even in earlier days, and to a lesser light like the Duke of Ferrara, he writes that he "has no pleasure so great as to be worthy of serving when and where your excellency may think me fitted to do so." Of his love of money the proofs are unpleasantly prominent everywhere; and of course it was no wonder that these "great persons" took him at his own valuation, or that one of the Spanish envoys (Garcia Hernandez) wrote to the Court that "though he" (Titian) "is old, he works and can still work, and *if there were but money forthcoming we should get more out of him than we could expect from his age*; seeing that for the sake of earning he went from hence to Brescia to look at the place in which he has to set certain pictures just ordered of him." This was when Titian was over ninety years of age. The biographers remark that Titian "was and always remained a gentleman"; but surely the "grand old name" can be used but in a restricted and conventional sense here; surely it is more applicable to the stern pride of Michelangelo, who carelessly said that it was true he had served three Popes, but he "could not help it." Compare, too (as we began by referring to Michelangelo) the noble and exalted friendship with Vittoria Colonna, which dignified his life, with the most enduring friendship of Titian's life, that of Pietro Aretino, a man notorious to all time not more as wit than as glutton, libertine, and buffoon, beyond even the licence of his own licentious day. Nor is there one word in any record of Titian to indicate that he had any wide interest in the events of his day beyond the limits of his art. "Whilst Florence is wrestling with fate and fighting against treachery, with Buonarotti on the side of the patriots, Venice stands still and watches with feline cunning the triumph of Imperialism, her greatest master being busied with nothing more than portraits of ladies and pictures of female nudes." This quotation implies, certainly, that the tone of the society in which the painter moved was as much to blame as himself. But in Titian's letters there is nothing that arrests the reader, no indication of force or individuality of character. He was a very great painter, but by no means a great man; and with all desire to think the best of one who has contributed so splendidly to the intellectual enjoyment of mankind, we cannot afford to ignore this fact, so significant in its bearing upon the question of the relation of art to the great realities of life, and in the explanation it affords of the unquestionable limitations of Titian's genius.

ARCHITECTURAL DEVELOPMENTS IN INDIA.

THE momentous changes which the vast continent of India, and may we not say the "East" generally, is now going through, make the subject of "Indian" or Eastern Art not a little interesting, and may be instructive. We have now, since the days of Clive, had a footing in "India" (to use that general but somewhat indefinite, if not misleading, word), and have held control more or less over its many millions of sun-burnt peoples. It may be recollected that India contains nearly a million and a half of square miles of area, and that but little better than a superficial knowledge is possessed by us of its almost countless number of inhabitants,—of their ways of life, manners, language, faiths, and fine art. Dictionaries and "guides" are but poor helps indeed here, and we seem, as we dive into the subject, to get at little but antique *names*, and but a confused misty idea through them of the places and peoples to which they refer. The subject, seems familiar enough, but it is not really so. India is a vast mine of difficulties, however looked at, and, if, as is sometimes thought, the earliest evidences of the primeval man is to be there found, it may in the future afford the best evidences of the individuality of races, and manners, and arts, and in it the true value of them may be estimated. It is truly a wonderful land, with a history so far back in time as to be without a visible beginning.

We must need confine ourselves to matters artistic and architectural, but it is not a little difficult to treat, ever so cursorily, of these, special as they are, without reference to other and extraneous matters. Nothing in art has seemed to our mind more curious and interesting than that of the origin and primitive originality of the primal and unborrowed arts and architectures of the world. Go where we will, all the world over, there has always been found in all isolated places, continents as well as islands, evidences and examples of primitive and individualised arts and architectures, altogether unborrowed and new, however rude and even savage the people may have been who invented them. New Zealand shows a remarkable instance of this individuality and power of artistic expression, and mode of work. It shows beyond dispute that the power of artistic expression in material is part of the constitution of man, and inherent; and that if he cannot borrow and copy forms of art, he will invent them, be he where he will. The New Zealander was as individualised in his art as the antique Greek, and so also was, and even now is, the Hindoo; and there is no more difficult problem in art than that of its origin in each case, as here, and what that was which specially guided them in the production of their "ornament" and in the decorative details of their architecture, however rude that may have been when first invented.

It has often been said that the architecture of a people, as that of the Hindoos, grows out of its religion, and, doubtless, in a certain sense and way it does so; but the details of its stone carving and cutting are found ready to hand before the temple is built. The architecture may, indeed, be said in a sense to mould the religion and religious expression. In this instance of the Hindoo, with so complicated a faith and elaborate a ceremonial, it will be found that the details of temple-building and the "ornaments" to be found in the temple furniture, are all ready to hand, whenever the need arises; and the new temple is built with the materials already provided. In this work of the Hindoo, scattered as it is over so vast an area, there will be found ample means of proving this, for in no country in the world are there to be found so vast a number of temples and buildings dedicated to religious purposes as in India. These are not, as might at first sight be thought, all alike, and uniform in style and mode of treatment and detail. It is not a little surprising to find how much the north and south, east and west, differ from each other, although all be classed under the same general term. It must be confessed here that we are sadly at a loss for evidence; for the little that is available is really as nothing compared with the vast mass of materials that must exist over so large and diversified a space. Here, with us, a church or a chapel is either in the town or in the country, and it is pretty much the same wherever you go; but the Indian temples are all but infinitely diversified, both in build and in situation and surroundings. Some are found built in *gardens* of singular beauty, and their builders seem to have had the gift of selecting sites for the sacred buildings not to be surpassed in appropriateness and purpose. Sometimes, again, the very wildest and most out-of-the-way spots are selected for the temple architecture, — among stupendous mountain scenery, and looked down upon by snow-clad summits, of which but a faint idea can be formed even by those to whom the Alps are familiar. Sometimes they are deeply buried in forests, and closed in by groves of gigantic banian-trees; and then, again, they are to be found, as a matter of course, as elsewhere, in the midst of thickly-crowded cities, and surrounded by houses and divers buildings, forming items in the picturesque street architecture. Indeed, it may fairly be said that our Indian empire has had built in it a series of temples and other structures, all but unrivalled in the world, and that the genius of the Hindoo race of builders has for a long succession of ages been employed in the work of adding to the marvels of the art architectural.

And not only are the number and position of those buildings to be wondered at, but the power of the *sculptor* who has worked on the bare architectural forms not less so. For extent and elaborateness of "ornamentation" they are not, and cannot be, surpassed; and this ornamental detail is not put there for the mere sake of covering blank marble or stone wall facing, but it is all of it symbolically expressive, all helping to tell some quaint story or legend. It is *wall writing*, if there ever were such anywhere. We might cite a few well-known examples, and would refer to the few fragments to be found in the British and India Museums, which, though so few, are well worth attentive study.

It is to be borne in mind, too, though the fact is but little attended to, that not only does the architecture and its details differ so much in different parts of this vast country, but that the precise uses to which the temple buildings are put differ as much as the material forms them-

selves. In other words, the "superstitions," to use that general though somewhat vague word, are multitudinous, and influence, insensibly may be, the manners of the people, and impress themselves in the architecture, as it is found, north and south. It would be but repeating high-sounding words to catalogue them, but it would seem a pity that so much that might have been done has been neglected. It is only in the stray notes of travellers, and but through accident, that we know the little that we do about them. That such differences do and must necessarily influence the artistic forms is certain; and it would seem to be all but a duty to make and preserve records of them. It is worth note, too, that, though there are many superstitions, there are, and have been, from a remote time, very many sublime truths and hints at far-reaching thought which even enlightened Europe, as it is, is but now beginning to get a glimpse of. We may, indeed, with infinite advantage, study the architecture and fine art of the Hindoo, and must need profit by it; but it is, at the same time, all but imperative to look at the causes which have produced them, and at the special uses to which they have been put. It is for those who have opportunities and leisure to work this mine of art-wealth.

Not very much insight have we, certainly, considering the time we have held occupation of the country, and it would seem a pity if opportunity is not taken of what is now going on at head quarters to add to what we already have,—not by destroying the native buildings, but by the acquisition of carefully-taken impressions of their details, and even—which would, perhaps, be yet more to the purpose—by the observation and close study of *building*, as it is now practised by the natives themselves,—not in the Europeanised cities and towns, but in the more out-of-the-way and retired spots, where the native architect and workmen are doing their work in their own special and individualised way. We know little or nothing of the mode in which the vast structures of the Old World were built up; and, indeed, marvellous as they are in size and power of artistic expression, these qualities are hardly more to be wondered at than the way in which they were built up,—all our now so necessary mechanical appliances, as steam power, being absent,—the amazing *accuracy* of the work being not the least remarkable thing in them. In the Hindoo work we are at a loss which to wonder at most, the quantity of the work, the skill with which the parts are put together, or the quantity and intricacy of the carving in and all over it, and we may well add its refinement. Colonel Lod, Bishop Heber, and others thought so much of this last characteristic, and were so impressed by its constant presence, that they thought that the Greek himself must needs, in some way or other, have had a hand in it.

We have confined ourselves at present to the indiginous art of the Hindoos, and have not touched on that of their Mahometan conquerors,—quite a study in itself;—nor on that of the architecture which we have been, and are now, building up in so many parts of the country,—a subject in itself again of no small interest and importance. Indeed, of it may we not affirm that it is symbolical of our rule? Such native towns as Delhi and Benares, must need take a long time to Europeanise, and to thoroughly "improve" in our sense of the word, expressive of so much. But a city like Calcutta is a new city, and has sprung up under English auspices, and indeed grew up out of a mere village. It is perhaps as Europeanised a town as is possible under a tropical sun. All is most surely done here that can be, but the mighty laws of Nature cannot be gainsaid or reversed. The Hindoo even here is a Hindoo still, and with instincts and faculties peculiarly his own, and fitted, too, to the special country and circumstances in which he is placed. The architecture and the fine art to be found here are all predominantly European, admitting, of necessity, the native element in and with it; but not as in a purely native city, wherein the European is the "leavening" influence, more or less effective for change. A very curious state of things, all ways looked at; certainly artistically. It presents, indeed, a problem, and a great and comprehensive one for the future. It is "progress," there can be no doubt. But what is progress? asks the author of "Tancred," here and in such like places: "native arts forgotten, old ways of living annihilated, and literatures and even languages altogether lost!" Surely it is not *all* gain!

NOTES IN THE "OLD MASTERS'" EXHIBITION.

IN spite of fears that have been expressed, that the resources for the annual loan exhibitions had become nearly exhausted, the present collection at Burlington House is little inferior in interest to any of the previous exhibitions, which, as our readers know, is saying a good deal. There could, indeed, be no fear that the real resources of England could be exhausted by eight such collections, so rich is this country in masterpieces of the painter's art; but the readiness of owners of private collections to lend their treasures is of course only to be counted upon within certain limits; and though, as far as the public are concerned, a repetition of the same collection, after an interval of ten years, would be most welcome, it may seem otherwise to those who, having lent valuable works once, are not disposed to do so a second time. For the present, however, though we have not such an array of splendid works as in some previous years, the attractiveness of this collection has been skilfully kept up by certain specialities in the selection, which have proved of sufficient interest to keep the pens of ready writers on art even more largely employed than is usual.

The "point" in the present exhibition, about which every one is talking, consists in the presence of a dozen of the works (portraits chiefly) of Sir Henry Raeburn (1756—1823), whose name has been better known than his works to "the Southron" hitherto; and whom the unthinking publicand (sometimes) equally unthinking critics, in their joy over a new reputation, are minded at once to rank with Reynolds, Romney, and Gainsborough, as another great portrait-painter. This notion we must emphatically contradict; with a strong expression of opinion as to the inane way in which a fashion or liking of this kind is set up by *quidnuncs* of the daily press, and taken up by foolish people who go about the rooms saying to their friends, "How admirable! I much prefer his portraits to Reynolds's," and so forth. There is enough in the works of Raeburn exhibited here to show that he palpably imitated Reynolds and Gainsborough, and that he had sufficient genius to come very near his models sometimes; but the best imitation cannot be allowed to rank with the original. The best of his works here is the portrait of Dr. Spens, in the uniform of the Royal Company of Scottish Archers, drawing his bow and taking aim (268): the face, a fine one, is painted in very broad vigorous style, and with admirable expression, and the distance very effectively sketched, *à la* Gainsborough, but the painter's determination to emphasise the thistle in the foreground has led to his making it so hard and prominent as to be almost an eyesore in the picture. In the portrait of "Alister M'Donnell" (271), in Highland costume, and grasping a gun, there is, with all its force and finish, a theatrical element quite alien to the art of the two great English painters, and though the portrait of "Mrs. Gregory" (91) might certainly be taken for Reynolds in one of his many humours, it would not be in one of his best. The painting, though rather white and chalky, is a very charming one; but a great deal of the charm is in the lovely and expressive countenance of the sitter. A more original and powerful work is "Lady Raeburn" (47), neither lovely nor expressive, but remarkable enough in her attitude, with her great muscular arms folded, and the dress, simple in colour and arrangement, finely and broadly treated. And no doubt the manly and vigorous portrait of "Lord Eldin" (15) contrasts favourably with the opposite work, in which Lawrence has smoothed down rough "John Abernethy" (7) into a bland vacillating old gentleman. In short, the Raeburn portraits are powerful and very interesting; but we protest against the absurdity of therefore at once placing their author on a level with such a many-sided master as Reynolds.

Among the English portraits are the two interesting half-lengths of himself and Burke, painted by Reynolds for Mrs. Thrale: the painter represents himself holding his hand to his ear to assist him in hearing; this portrayal of his own infirmity by the artist speaks feelingly of his trustful intimacy with the kind friend and hostess for whom it was painted. The portrait of "Captain John Foot" (36), in Indian costume, is traditionally said to have been a favourite with the painter, a tradition for which the work does not afford much foundation. One of the numerous "Nelly O'Briens" which Reynolds painted is fine (195); she leans on her arm on an urn, with her face and figure seen in profile. Other Reynolds's here are interesting, but not of his best; Gainsborough is more strongly and characteristically represented. Some of his works, whether intentionally selected or not, illustrate specialities of colour in the costume: thus in the portrait of "Paul Cobb Methuen" (224) we have a sort of emulation of the effect of the "blue boy," in the treatment of the blue doublet; and "Lord Archibald Hamilton" (104) leans gracefully against a tree in green coat, yellow waistcoat, and black velvet breeches; the latter form the harmonising agent in a combination more successful than, from its description in words, one would suppose possible. "Miss Isabel Howland" (41), in light-grey figured dress, is remarkable for the pearly tone of the whole. There is great character in his "Anne, Marchioness of Donegal" (123), a lady with compressed lips, of very vinegar aspect, trying to look rural as she plucks a flower in a garden; the picture looks almost like a concealed satire.

Romney's favourite sitter, Lady Hamilton, appears in several characters—Joan of Arc, Cassandra, &c. (heads or half-lengths only), and in her own character, reading in a newspaper of one of Nelson's victories; a picture with other interests than its artistic merit, which is not (for the painter) remarkable. His portrait of a Mohawk chief (6) is a fine and unusual work in subject, colour, and handling. When we get among the foreign portraits by older painters we find some of rare excellence. Perhaps the finest in the Galleries is that by Holbein (232), "Portrait of a Gentleman," in a cap and furred gown, with a keen eager face and thin beard, holding out one hand as if to enforce some point in an argument; the hand and face are most delicately modelled, and one hardly knows whether most to admire the force and individuality of the whole, or the execution of the details. Among the Vandycks are some of special excellence, among others that of the "Duke of Richmond and Lennox" (138), in Vandyck's superb court style, his hand leaning on the head of a noble deerhound; but more interesting than this, because more apart from the painter's most usual manner, is the likeness (56) of "Don Livio Odeschalchi" (nephew of Innocent XI.), a half-length of a gowned figure, with a face that has a history to tell; one hand grasps a sword, the other rests on a steel gorget, which makes a telling accessory to the picture. An interesting companion to this is the portrait of a peaceful hero, Sir Thomas Gresham (62), by Vandyck's fore-runner, Sir Antonio More; a most effective half-length of an oldish man with very peculiar strongly-marked features, in a velvet cloak and holding an orange: this is a remarkable picture, whether regarded as a portrait or as a painting.

Turning from the portraits to the more imaginative subjects, there is one work, the Marquis of Lansdowne's "Giorgione" (114), that seems to leave an impression on the mind as of something quite *per se*, distinct in feeling from all we are in the habit of seeing in ancient or modern painting. This is not one of the painter's greatest works in regard to force of colour or composition. Its charm lies in its complete unity of aim and feeling, and in the dream-like atmosphere which pervades it. We see a landscape defined only by broad, rich expanses of colour, bathed in that peculiar glow of subdued radiance of which no other painter has found the secret; no details are made out, except just where the flowers spring in the foreground; and here a youth, with long ringlets, seated under a tree, plays a low guitar accompaniment to a song which seems to be murmured rather than sung by one of two girls, who are seated on the grass opposite to him. The singer faces the spectator, her head bent down towards her music; the other girl leans her lovely face, seen in profile, against that of her companion, and seems lost in a day-dream. So visionary and romantic is the whole scene that one is almost startled to find it prosaically hung in a row with other pictures. It seems to have a world of its own, with which no other associations should interfere.

The grandly-painted and conceived figure of Christ as the "Creator Mundi," by Lionardo da Vinci (269, the property of Sir W. Miles), is one of the great things of the collection; and as a central attraction in a totally opposite manner we may mention the large Rubens, "Queen Tomyris with the Head of Cyrus" (99), a work which shows all the painter's strongest qualities with less of his deficiencies (or excesses, perhaps, we should rather say) than usual:

apart from the powerful grouping and colouring of the whole, there is admirable conception of character in the group of brutal warriors in outlandish costumes on the right, glutting their revenge with the sight of their enemy's head; and the dog slinking round from behind, attracted by the blood, adds greatly to the force with which the story is told. The Earl of Darnley, who sends this, contributes also a group of four allegorical pictures, by Veronese, which have been named "L'Amour Heureux," "L'Infidélité," "Le Dégoût," and "Le Respect;" the two latter are inferior to the others in conception and in interest; the first-named represents a noble-looking pair of lovers, in rich costume, holding aloft a myrtle (?) branch between them, while the lady bows to receive a chaplet from a Venus seated awkwardly on a pile of allegorical properties, and who forms the drawback to the composition, with her leg ungracefully kicked out toward the spectator; but there is an air of splendid and triumphant happiness in the principal group, which is wonderfully taking. "L'Infidélité" is perhaps, in an artistic point of view, superior, though less pleasing in sentiment: here a beautiful nude female, seated on a richly-embroidered stuff, with her back to the spectator, gives one hand ostentatiously to a man on her right, while with the other she slips a letter into the hand of a handsome youth on her left, towards whom her face is turned; the look of rapture in the face of the favoured lover is finely conceived, though it is not easy to account for the manner in which his figure (half reclined) is supported; the female figure is very fine in attitude and action; both these pictures are rather flatly painted, in a bright hard decorative style. The four are hung very effectively at the angles of the large gallery.

We have drawn attention chiefly to those works which have a certain special interest, or which are not very generally known. There is much more in the collection than we can pretend to comment upon in the space we have to spare. We may mention among the attractions of the galleries the splendid Cuyp lent by the Queen, called, from one of the prominent figures, "The Negro Boy"; a picture which sums up all the highest and most peculiar excellencies of the painter. Hilton's large picture of "Christ in the Prætorium," lent by the churchwardens of St. Peter's, Eaton-square, tells very satisfactorily amongst its surroundings, and prompts anew the double question why Hilton did not do still greater things, and why he has not received higher and more general credit for what he did effect? Two works by Murillo, the "Laughing Boy" and "Spanish Gipsies" (44, 206), illustrate his peculiar power, which lay much more, to our thinking, in this forcible brilliant painting of realistic subjects, than in his rather *fade* and pretty treatment of sacred and ecclesiastical subjects; of which, however, there is a remarkably pleasing example in the "El Sueño" (198), lent by Miss de Rothschild. Teniers and Ostade are well represented; and there is one very fine Terburg, "Portrait of the Princess de Condé" (277). Rembrandt's striking portrait of himself (32) in painting costume,—a picture built up, as one may say, in great blots of colour, is a typical and most powerful work; and Andrea del Sarto's portrait of himself (279) is of much interest. Rembrandt's "Potiphar's Wife accusing Joseph" is simply a powerful study of effect; and with this we might pair off Turner's strange work, "Rembrandt's Daughter,"—an evident attempt at making "a Rembrandt": an interior which is flooded with brilliant sunlight effect, and is a remarkable success, poor as the heads are. Two pictures of Etty's cause us to wonder at the reputation which he once had, and to rejoice that the idea of making a collection of his works was abandoned. Sir George Harvey's Ayrshire landscape (43) and his "Covenanters' Communion" (1) should not be overlooked, as the works of a Scottish painter who rose above what seems to be the natural level of painting north of the Tweed (for Wilkie, as far as his art goes, is English); the latter is painted with genuine feeling and pathos. There is a fine Richard Wilson, and a middling Turner, "The Lake of Geneva." The finest landscape in the rooms, however, is Constable's "Dedham Vale" (34), over which one can feel the breeze blowing; the middle distance, as a piece of reality without realism, is a perfect triumph of landscape-painting.

Gallery No. IV., devoted, as usual, chiefly to works of early art, contains nothing to compare in interest with what has been seen here on some former occasions: there is a strange tempera picture, unfinished or "gone," by Lucas van Leyden, of "Christ before Pilate"; and Lord Methuen's very fine Mabuse (or Van Eyck, for doctors differ on this head) of "The Virgin, Child, and Saints," with the remarkably real fly on the mantle of the former; and two or three specimens of Fra Angelico, rather interesting than beautiful. The portrait of Queen Mary, by Lucas de Heere (lent by the Society of Antiquaries) is a truly wonderful piece of decorative painting, and the character and lines of the countenance seem as real and as accurately studied as the minutely wrought and sumptuous costume; the background, described in the catalogue as "red velvet," is, however, obviously silk, and not velvet, from the way in which the light catches the folds. There are other works of curious interest, historical and decorative, in this room; and of the collection as a whole we may say that the difficulty of compressing into a short space anything like a sufficient notice of its contents convinces us that there is even more for study and enjoyment in this year's Loan Exhibition than we had realised before attempting to record our impressions.

DEMOLITION OF THE FIRST MASONIC LODGE IN PARIS.

ENGLISH Freemasons curious in the history of their craft, and familiar with Paris and its innumerable memorials, must remember the old *traiteur's* in the rue des Boucheries St. Germain (now the rue de l'École de Médecine), where the first Masonic lodge established in Paris was founded by Lord Derwentwater in 1725.

Every Mason must know how this antique confraternity of the arts was transformed in 1717, at London, from a mechanical and philosophical corporation into an institution purely philosophic, abandoning for ever the material portion of its labours, the construction of monuments, but preserving at the same time scrupulously its doctrines and traditional symbols.

The first towns on the Continent where Masonry thus regenerated was carried from London were Dunkirk (1721) and Mons (1721).

It was only in 1725 that a first lodge was founded at Paris by Lord Derwentwater (and two other Englishmen), under the title of *Saint Thomas*, and constituted by them in the name of the Grand Lodge of London, June 12th, 1726; its members, to the number of five or six hundred, met at Harré's, a *traiteur*, in the rue des Boucheries, St. Germain. By the care of the same Englishmen, a second lodge was established, May 7th, 1729, under the name of *Louis d'Argent*; its members met at Lebreton's, another *traiteur*, at the sign of *Louis d'Argent*. The 11th of December, the same year, a third lodge was constituted under the title of the *Arts Sainte Marguerite*; its meetings were held at the house of an Englishman named Gaustand. At length in 1732, November 29th, was founded a fourth lodge called that of *Buci*, from the name of the hotel where its members met, situated in the rue de Buci, and held by the *traiteur* Landelle; this lodge, after having initiated the Duc d'Aumont, took the name of the *Loge d'Aumont*.

Lord Derwentwater, who had in 1725 received from the Grand Lodge of London full powers to constitute lodges in France, was in 1735 invested by the same Grand Lodge with the functions of Grand Provincial Master; and when he quitted France, to return to England, where some time after he perished on the scaffold, the victim of his attachment to the Stuarts, he transferred the powers he possessed to his friend Lord Harnouester, whom he charged to represent him during his absence.

The four lodges existing then in Paris resolved to found a Grand Provincial Lodge of England, to which the lodges, which would in time to come be founded throughout France, could address themselves directly as representants of the Grand Lodge of London. A short time after the departure of Lord Derwentwater, this resolution was put into execution, and in 1736, under the presidency of Lord Harnouester, this Grand Lodge was legally and regularly constituted.

Little by little were established at Paris, by the side of those lodges founded on the principles of the Grand Lodge of London, other lodges, constituted by a Scotchman, Baron Ramsay, a firm partisan of the exiled Stuarts. This famous Mason for some time held the functions of orator to the Grand Provincial Lodge of England, above referred to. He, however, succeeded in establishing and introducing another Masonic system, called the Scottish, with seven grades, which had been created at Edinburgh by a chapter of the Canongate Kilwinning Lodge, with a political aim,—the support of the Stuarts, the subjection of Masonry to Catholicism, and the founders of which, not being able to state its true origin, had attributed the creation to Godefroi de Bouillon. This Masonic rite has never been accepted either in Scotland or in England; but, introduced by Ramsay into France in 1730, it has served as the basis of all the Masonic systems propagated from that time throughout France and in many parts of the world.

In 1737, Lord Harnouester, the second Grand Provincial Master of France, wishing to return to England, asked before his departure to be replaced, and manifested the desire to be so by a Frenchman. The Duc d'Antin, a zealous Mason, succeeded him in June, 1738. The Duc d'Antin was chosen among those members of the Court who had shown the most zeal for the order. He had in reality faced the prohibition of Louis XV., who had forbidden any of the nobles of his Court to belong to any of the societies of Freemasons, and the duke showed much courage in accepting the functions of Grand Master, inasmuch as the king had threatened to immediately put into the Bastille any member of his Court who would preside over Freemasonry in that quality. The king, however, did not carry out his threat, but the police of the Châtelet continued the proscription against those members who could not oppose to them the influence of their names or capacities.

To follow the subsequent history of Freemasonry in France would be a study beyond the limits of these pages, but by a recent return it appears that there are at present in France no less than 203,400 active members of the craft; adding to these those Masons who have renounced any share in the work of the order, we have a total of some 500,000 Masons in France.

Within, then, a very few days, this interesting old building will have disappeared. Not far from it rises the venerable old church of St. Germain des Prés, which has existed here since the sixth century.

This quarter and its historical surroundings are about to be demolished to make way for those changes which, since the announcement that the Exhibition is to be opened in 1878, have received such an extraordinary impetus.

The Boulevard St. Germain, which has partially existed already for some years, will, by 1878, be completed. Those who believe in Abernethy's prescription, that it is healthful to look into the shop-windows, and those fond of the asphalt pavement (and really it would be affectation to be otherwise than fond) may then enjoy a walk or drive of some ten miles of *cafés* (where *bock* is chiefly consumed), *bonbon* shops, and *Articles de Paris*, between rows of trees, starting from the Place de la Concorde, pursuing the Boulevard St. Germain and the Boulevard Henri IV.,* passing through the Place de la Bastille, along the Boulevard Beaumarchais, and so along still under the trees, to the Porte St. Martin, to their beloved Boulevard des Italiens, and the Café Anglais, and the familiar Madeleine.

As for the rue de l'École de Médecine, which has now to give away, it has existed under this name but for a very few years, since, indeed, 1851, up till which time it was known as the rue des Boucheries St. Germain.

Originally only a country road from the hamlet of St. Germain, in April, 1274, the butchers of the suburb were allowed there to establish sixteen stalls, and from this time the street became one of the most commercial in the locality. After the battle of Poitiers (1356), when the English, victorious, advanced up to Chanteloup, these butchers abandoned their establishments, and took refuge within the walls, and it was only after all danger was over that they ventured back to their deserted shops.

Sauval, writing at the commencement of the eighteenth century, gives us a description of the street in his time. "The shops," says he, "are part of the houses in which live, above, the masters. Each shop is accompanied by a spacious slaughter-house in the open air." Judging by this, we can easily imagine the narrow street, lined with the stalls, while through it ran a gutter reeking of infection. Happily, the creation of public *abattoirs* in 1809 purified the street.

The butchers, judging by the appearance of the streets in Paris, seem always to have been a very important class of the *bourgeoisie*, and if,

* See *Builder* for September 7, 1876.

as vegetarians tell us, that their own innocent diet is provocative of clear-headed sprightliness, it is difficult to account for the proverbial *esprit* of the French who, we are told, are much larger consumers of meat than we in England. The fact is, that the French, who have gained, and justly gained, so high a reputation for their provident ways, are provident and self-denying merely with a view to obtain the means for the indulgence of habits and modes of life that are very much opposed to asceticism. When the people were poor, they were temperate and sober; as the workman's income increases, he eats more meat and drinks stronger wine. He is, still, thanks to some unknown reason, a far more temperate man than his English brothers, but it is evident that the use of alcohol is even here on the increase.

Paris.

THE PRUSSIAN PENITENTIARY OF THE PLÖTZENSEE, NEAR BERLIN.

THE simplest and most inexpensive mode of reaching the new Penitentiary on the Plötzensee, a small lake near Berlin, is by the "Green Carriage" (the "Black Maria" of the capital of modern Sparta), which keeps up regular daily communication between the Stadtvogtei (the metropolitan police court, on the Molkenmarkt) and the Penitentiary at the above lake. Those, however, who have not qualified themselves by transgressing in some way against the law for the privilege of gratuitous transit by this conveyance, and are yet desirous of paying a visit to the prison, may reach their destination best by using a "first-class" cab. This will take them past the Lehrte station along the *chaussée*, planted with small, stunted trees, which leads along the so-called Nordufer, the northern bank of the Berlin-Spandau Canal, past several benevolent institutions—Bethesda, the Magdalenenstift, and the plantations surrounding the Johannesstift, all three facing the canal. After a drive of three-quarters of an hour, the Jungfernheide is reached. The coachman turns to the left over the bridge, and thus deprives his fare of a view of the lake which has given its name to the Penitentiary. A mass of red brick buildings rises above the horizon, the celebrated and much talked-of new prison of the capital. In front of it, and on both sides, a not very thriving forest lingers out a precarious existence in the midst of the mournful plain of sand which, if it does not form the chief attraction of the surroundings of Berlin, certainly is their most distinguishing feature.

The first impression made by the Penitentiary of Plötzensee is decidedly pleasing. One notices first a row of pretty small houses, built, like the rest of the buildings, of red brick; some of them are overrun with wild vine, but all look cheerful and attractive. These are the residences of the prison officers. The chief entrance to the Penitentiary, guarded by soldiers, is in the centre of the row of houses. After crossing a corridor, a pretty court, or rather garden, laid out with turf and flowers, and in the centre of which rises a large gas-candelabrum, is entered. From here the prison proper is reached: the great central building, in the lower rooms of which are the offices of the chief officials, while the upper part is devoted to divine worship. This building is erected in church style, with two turrets in simple Gothic. To the right and left of the principal building, and joined to it by smaller erections, stretch two gigantic prisons, for prisoners in common confinement, containing workrooms, sleeping-rooms, washing and cleaning establishments, &c. At right angles to each of these common prisons, abutting on the latter, and parallel to the church-like centre building, is a side wing; here are the cells for prisoners kept in solitary confinement. Those five buildings, the church, the two great transverse buildings for prisoners in common confinement, and the two wings for isolated prisoners, form the real nucleus of the penitentiary establishment on the Plötzen Lake. To the right and left of this centre, and separated by courtyards from the other buildings, are the workshops. On the left side two large establishments have just been completed. The smaller one, nearest to the church, is a prison on the solitary principle for juvenile offenders; the larger one, still farther back, a solitary prison for adults. On the right side, separated from the latter by the buildings containing the machinery, the pumping-engines, &c., another prison on the solitary principle for adults, as a pendant to the one mentioned, is projected, but nothing definite as to its construction is as yet known. At present, 1,200 prisoners can be accommodated at Plötzensee, and this number is still further to be increased.

The prisoners in the Plötzensee Penitentiary lead a most regular and not at all severe life. They receive, besides a plentiful supply of bread, daily nearly six pints of soup; three times per week the latter is made of meat. The fare is wholesome, and, according to those who understand the matter, also palatable. Besides this, those prisoners who are blessed with a more than average appetite receive more than the ordinary rations. In short, the supply of food is plentiful. The quantity of work a prisoner is expected to do is not considerable, an industrious workman being able to do much more than the regulated amount of work. Extra earnings are placed at the disposal of the prisoner; with them he may either purchase certain little luxuries, such as bacon, ham, sausage, cheese, butter, lard, light beer, and so on, or they are saved up and handed over to him when he leaves. These extra earnings sometimes make up a considerable sum, and it happens that prisoners who have been confined at Plötzensee for two or three years draw at the day of their discharge sums ranging from 20*l.* to 30*l.* The workshops are cleaner, more airy, and more pleasant than they are found in any private establishment. Even the shops of locksmiths and metal-turners are kept scrupulously clean. This cleanliness, however, can only be obtained through the great number of hands at disposal, which permit of the rooms being kept tidy even during working-hours. During their leisure-hours the prisoners take a walk in the spacious and airy courtyards, or else pass away their time by reading books supplied by the prison library.

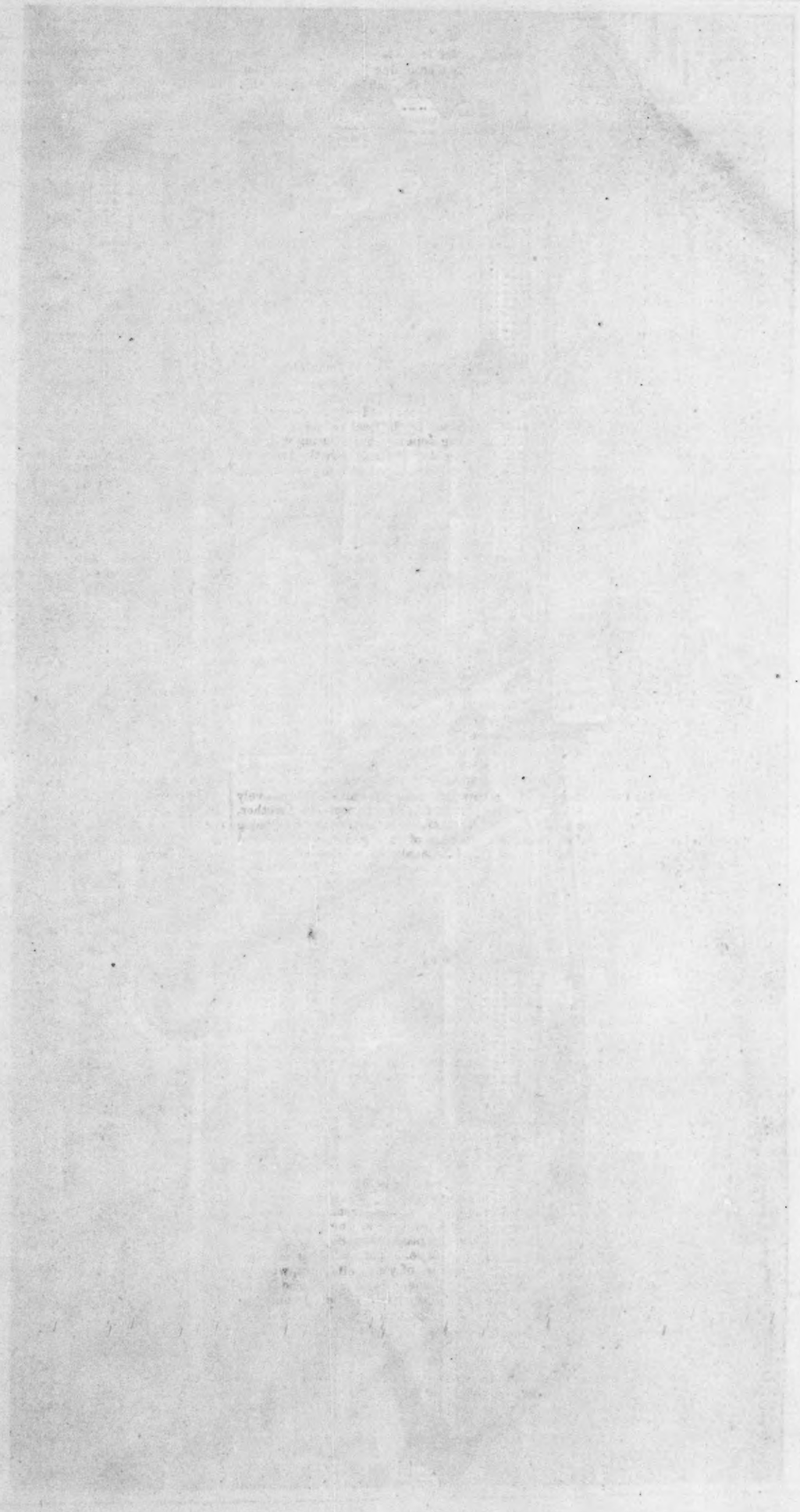
The habitations of the prisoners are also much better than many of them possess in a state of liberty. Most striking is the exceptional cleanliness. By a large supply of water—over twenty-six gallons per head per day—the great evil of infected air is obviated. On the whole, therefore, although political prisoners, to whom the feeling of forcible deprivation of liberty is by itself the greatest punishment, have reason to complain in their solitary cells of the hateful uniformity of prison fare, and the strict application of prison regulations, the great majority of the prisoners on the Plötzensee, the rabble, fare materially much better there than when enjoying liberty. They have better living and sleeping accommodation, work less and under better conditions than when free, have a plentiful supply of food, and effect savings which they would never be able to do in freedom.

The above has reference almost exclusively to those prisoners who are confined together, and work together, their usual occupation being the manufacture of cheap fancy goods and stationery. It is almost useless to speak in their case of the moral effect of their confinement. They have free intercourse with their neighbours, tell each other the pranks and base tricks which they have practised or intend to practise, are mostly jolly and in a good temper, joke and laugh, and feel their punishment either very little or not at all. Authorities on prison discipline of the present day consequently almost unanimously condemn the principle of common confinement. In the new buildings on the Plötzensee the system of isolation will be carried out with the greatest strictness. In the cell the prisoner feels that he is a prisoner; he is left alone with his thoughts. There, indeed, deprivation of freedom—meaning, at the same time, deprivation of society—weighs upon him. At present the solitary cells of Plötzensee are occupied only by respectable prisoners, to whom intercourse with the rabble is hateful, by confirmed criminals, against whose contagion the other prisoners are to be guarded, or by prisoners who have made an attempt at escape, or who have been guilty of some crime requiring a closer supervision. The juvenile prisoners of Plötzensee are now all confined in the new building erected especially for their reception on the solitary principle. This isolation is most essential in the case of young offenders, who are thus made more amenable to persuasion. The young criminal works alone in his cell, and has no company night or day. Even his daily airing he takes alone in the isolated court. Those courts are built in a semicircle, their centre being formed by a little tower in which is the prison warder. From the periphery towards the centre run a number of radii, formed by high walls. Thus a number of small courtyards are created, which on the side of the tower form an acute angle, and on the other run as far as the periphery of the semicircle. In this direction the prisoner taking his walk has a view upon a garden. There are horizontal bars where he may practise gymnastics, &c. The gaoler from his tower, of course, overlooks the whole of the radiating courtyards, and is also seen by the prisoners in the yards; but the walls are too high for the prisoners to see each other. At school and at church, also, the young prisoner does not know who are his neighbours. The pulpit of the clergyman, or the desk of the schoolmaster, is pretty high. In front of it rises, like an amphitheatre, a series of boxes; each of these boxes has a number, and each has a separate entrance. The prisoner is led into this box; he has there a stool on which to sit down and in front of him a small board on which to put his books; he may rise in it, without being able to see who sits at the right or left of him, in front or at the back. He sees, however, the teacher or clergyman, and is seen by them; for a perfect view can be had from the desk or pulpit of all those present at school or church. Under such conditions, severe but beneficial, the juvenile prisoner has time for reflection, and his offence and its consequent penalty are brought home to him. A few weeks of such solitary confinement may, under certain conditions, exert a decidedly favourable influence upon his future life, while confinement in company with others only tends to impart to easily-impressed youth a new impulse to further transgressions and crimes.

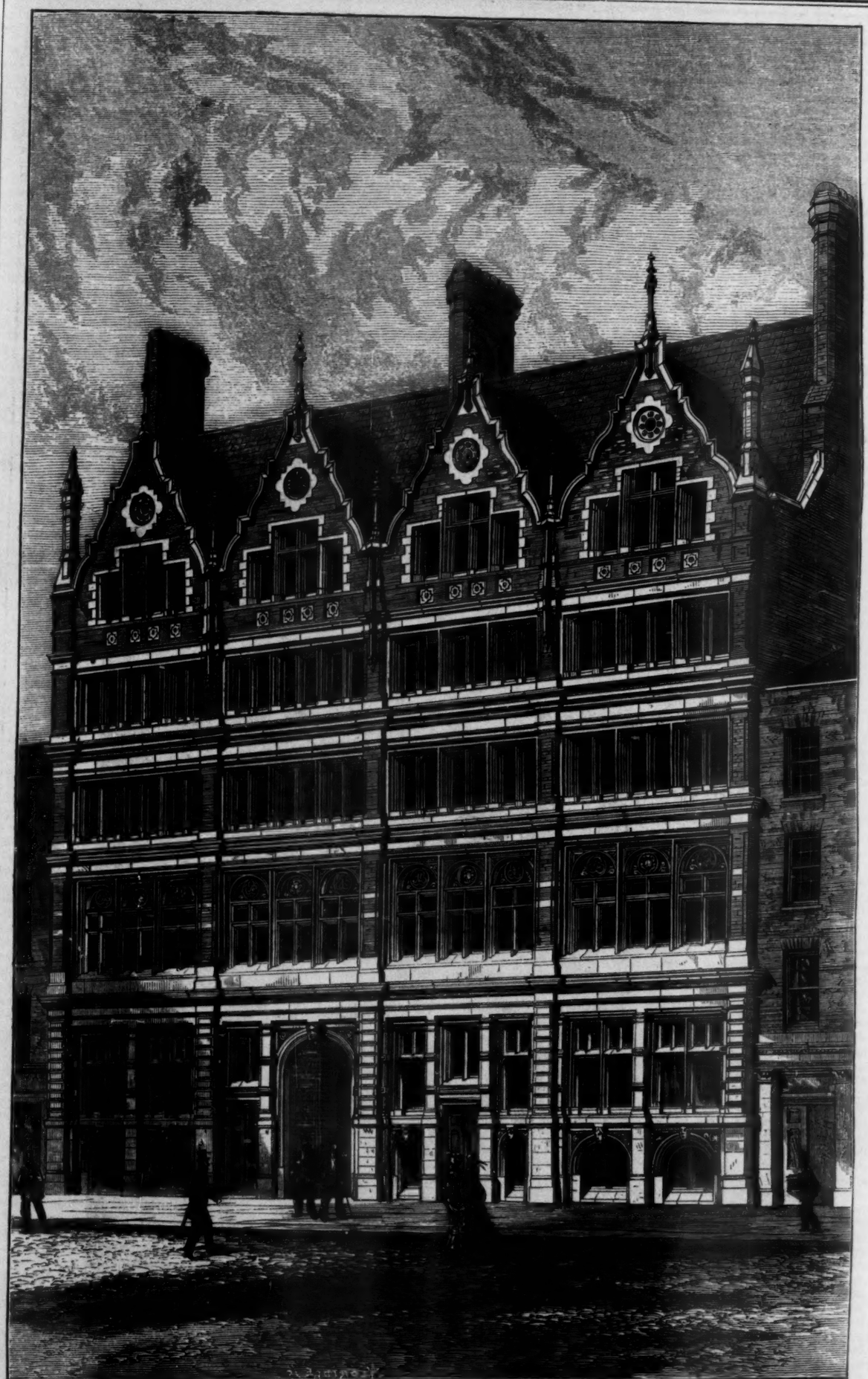
The Penitentiary at the Plötzensee is under the supervision of Director Wirth, one of the most distinguished prison officials in the German empire, an educated, practical, and, before all, humane man, who is said to be equal to his task in all respects. Herr Wirth, who is a native of Bavaria, was called to his present responsible position from the Nürnberg Penitentiary. He is reported to be unceasing in his efforts of improving the condition of the several prisoners, and at the same time, and principally, of making the punishment which they have to undergo effectual: in other words, of reforming the prisoners as much as possible. He is assisted in his onerous duties by Inspector Gennat, vice-director, the type of the Prussian official of the right stamp, who is said to understand how to gain and preserve the confidence of all prisoners by his energetic and, at the same time, kindly bearing. The chaplains of the Penitentiary are the Pfarrer Herren Jung and Feldhahn; the prison surgeon is Dr. Baer.

We may include our notice with the following extract from a well-known German authority writing on the subject:—

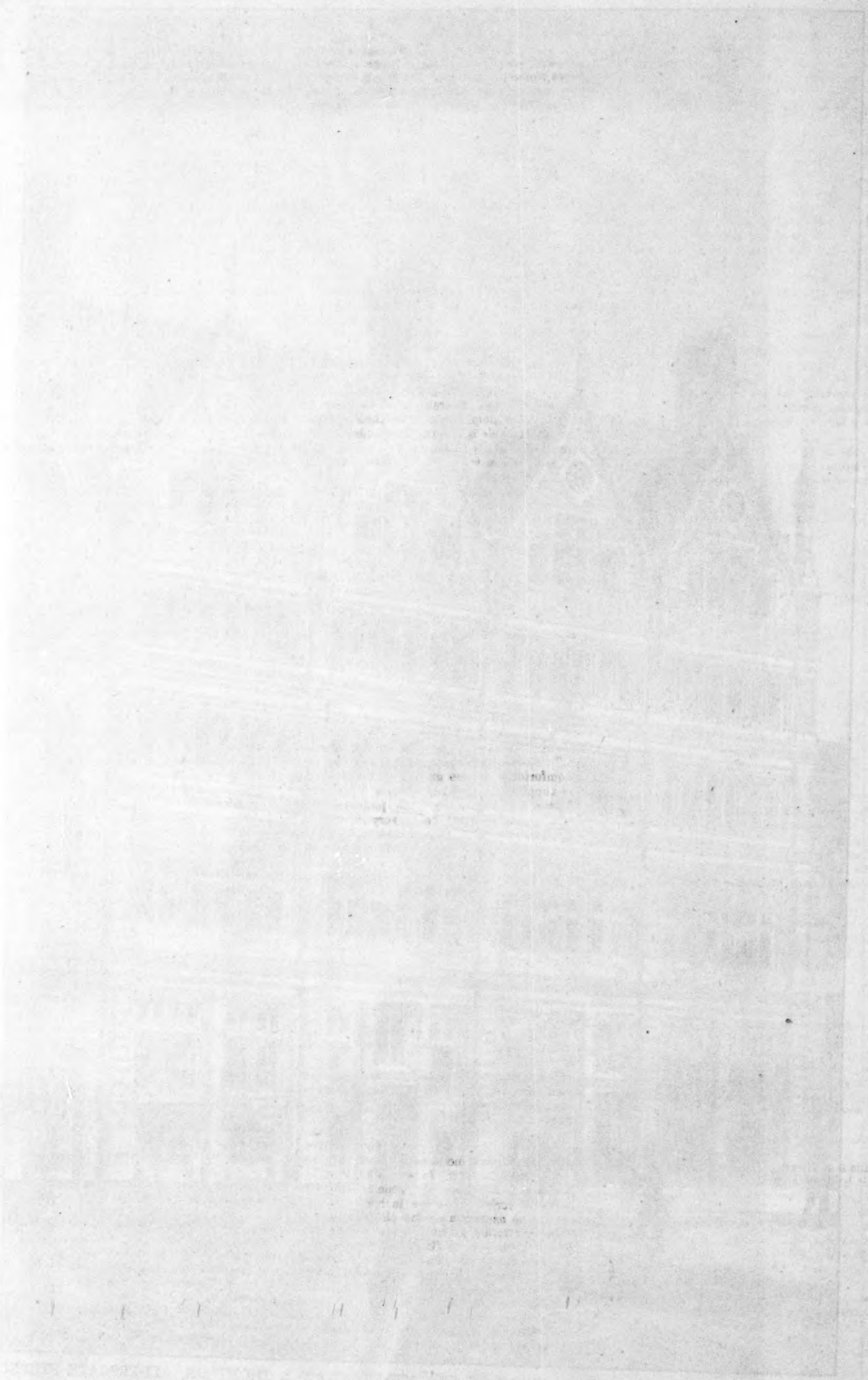
"The way in which the officials of the establishment on the Plötzensee and their subordinates perform their duties is deserving of all praise; and if the discussions in the Prussian Chamber on that institution gave rise here and there to the opinion that the prisoners are treated with exceptional severity, even unjustly and with inhumanity, it ought to be stated that such aspersions are entirely untrue, and that a protest ought to be entered against them. It is indeed true that those who have been sent to Plötzensee for longer or shorter periods for offences not affecting their honour or public morality have every reason to complain of the imprisonment as it is carried out at Plötzensee. Greater liberty ought to be accorded to 'political prisoners' than they can be granted at that establishment. If we consider that men such as the social democrat, Herr Most, member of the Prussian Chamber; Chaplain Paul Majunke, the editor of the *Germania*; the aged Herr von Schroetter, formerly Landrath or district councillor (the 'Protestant' of the *Germania*), are forced to spend months and years of their lives under the same conditions as most worthless individuals, offenders against property, &c.—this certainly jars harshly on our sense of justice. It is earnestly to be desired that the legislature should step in, and issue for entirely different offences different regulations as to the mode of punishment to be awarded; that it should grant other privileges to such as are deprived of their liberty for the expression of their opinion than to common swindlers and defaulters. But no law regulating the mode of imprisonment has yet been passed, and the official of the Penitentiary knows at the present time no difference between the prisoners of the one or the other category. However, we should not find fault with the inner arrangements of the institution on the Plötzensee, but rather with the want of guiding regulations; we should not criticise the officials, but expose the indolence of a legislature which permits such a state of things to exist."



PRISON ARRANGEMENTS: THE NEW PRUSSIAN PENITENTIARY ON THE PLÖTZENSEE, NEAR BERLIN.



LONDON STREET ARCHITECTURE: PREMISES FOR MESSRS. MAW & THOMPSON, ALDERSGATE STREET.
MR. H. B. GARLING, ARCHITECT.



PREMISES FOR MESSRS. MAW & THOMPSON,

ALDERSGATE-STREET, LONDON.

THE building represented by our engraving has been erected for Messrs. Maw & Thompson, well-known surgical instrument manufacturers, from the design and under the superintendence of Mr. H. B. Garling, architect, of Bedford-row. It has a frontage of 90 ft., a depth of from 50 ft. to 75 ft., and is 75 ft. in height from the pavement of the street to the ridge of the main roof. The site was formerly occupied by Nos. 7, 8, 9, 10, and 11, Aldersgate-court, belonging partly to the Cooks' Company and partly to St. Bartholomew's Hospital. The features of the elevations were regulated by this circumstance, and by the necessity of erecting the building one-half at a time only, and preserving the levels of the floors of the old warehouse in the rear. The southern half only is now completed. The northern half is to be commenced immediately. The original premises, of very considerable extent in the rear of the present new building, were burnt down and rebuilt in January, 1857.

The basement of the new building, which is very lofty, is appropriated to the packing department; the ground-floor to counting-houses and offices, and partly to show-rooms; the first, second, and third floors to show-rooms; the roof, to a range of lofty workshops.

The building has been constructed in a very substantial manner, the columns, girders, and timbers being designed for the heaviest weights.

The staircases are formed with iron strings, with teak or pitch-pine treads. The façade is of the hardest Portland stone that could be obtained; the finials are of terra cotta, from Blashfield & Co. The general contractor was Mr. A. E. Robinson, New Kent-road; the contractor for the iron-work was Mr. Joseph Phillips, Victoria-street, Westminster; and Mr. W. Crittenden was the clerk of works.

ARCHITECTURAL ILLUSTRATIONS.

ARCHITECTURAL ASSOCIATION.

AT the ordinary fortnightly meeting of this Association held on the 12th inst., Mr. H. C. Boyes, president, in the chair, Messrs. A. G. Sawday, W. H. Bell, A. C. Houle, C. P. Edwards, H. Sykes, — Alford, and F. Cooke were elected members.

The librarian (Mr. Pownall) announced several donations to the library. Among the donors was Professor Donaldson, who presented a copy of his recent work, "Temple à la Victoire," lately reviewed in the *Builder*.*

It was announced that the first of the series of visits to new buildings and works in progress for the present session would be made to-day (Saturday, the 20th), the building selected being the new parish church of St. Mary, Whitechapel, which has just been erected from plans by Mr. Ernest C. Lee, architect, and which will be consecrated early next month.

Mr. Maurice B. Adams then read a paper on "Architectural Illustrations," in the course of which he said:—

In the illuminated MSS. of the Middle Ages, more especially those of the tenth and beginning of the eleventh century, ample illustrations of architecture are to be found. It is beyond the limits of our purpose to enter into this most interesting branch of the subject; suffice it to say that without these valuable records the student would have but a faint idea of the real beauty and elaborate character of Anglo-Saxon architecture, the actual remains of this date being necessarily very scanty, the rough and massive parts alone remaining. The shortness of our time will also prevent our touching upon Mediæval drawing, several examples of which have been published in fac-simile by Professor Willis and others. Their chief characteristic is their boldness and vigour, and for the most part they seem to be sketches with figured dimensions rather than measured drawings. Turning from these to wood-engraving, we find the earliest wood-cut print known bears the date of 1423, and the first engraved metal plate 1461; the first book published with plate engravings was Dante's "Inferno," which appeared in 1481. Perhaps the earliest instance of architectural illustration published in book form is the edition of "Vitruvius," by Frontini, date 1496. The earliest I have examined is the edition with commentaries by Cesar Cesariano, 1521. The work is copiously illustrated with rough wood blocks, showing many things foreign to architecture, but there is a technical appreciation of the architectural subjects, notwithstanding their roughness. The same may be said of the works of Palladio, published in 1570; in both books the materials and the construction of the buildings are shown in the sectional parts, which was not the case in most of the later editions and subsequent works of the kind. Several books with similarly executed engravings, chiefly in outline, followed Palladio, such as Serlio's "Tutte l'Opere d'Architettura et Prospettiva," &c., 1619, "Mecurius Civicus," 1643, and others, chiefly published in Italy. In Germany, early in the sixteenth century, we have the splendid wood-cuts and plates by Albert Dürer, whose illustrations of architecture in the back-grounds of his pictures deserve the closest study. His drawing was thoroughly Gothic in spirit, and equally adapted for the style of work he represented. The starting-point of our subject in England dates from the middle of the seventeenth century, when we arrive at a considerable advance in the art of engraving compared to that found in the books already mentioned, but we lose that technical quality which renders the illustrations of architecture of value to the student. In making this remark, it must not be thought I undervalue the beautiful works which follow; they are of the highest importance and interest to us; but it is rather as specimens of engraving, and as the only illustrations of architecture, that we value them, and not for their technical qualities, and this is the point to which I wish more particularly to allude. If the drawing of the architect has to be rendered by other than a specially-trained hand, it is obvious that much accuracy and feeling will be lost. Hence the surpassing advantage of those modern processes by which an original drawing can be mechanically reproduced without the intervention of any hand-work whatever. But to return. The earliest works of any importance for their engraved illustrations of buildings, are Dugdale's "Monasticon," and Dugdale's "History of St. Paul's." The "Monasticon" bears the date of 1655. The plates were chiefly by Hollar. The shading of his drawings is curiously executed, and at times muddy in effect. The detail scarcely satisfies inspection, the arcades and arches having a thin, weak, appearance. Renaissance scrolls, supported by cherubims with rococo garlands, break abruptly into the perspective views of Mediæval interiors. In the later editions the plates were re-engraved by Finden and Coney (1846-9), whose style of drawing has been called the "flick and dot." Hollar's exteriors, in this case, sit most uncomfortably on the ground, but this defect was supplied in the last edition. Dugdale's "History of St. Paul's" has plates also by Hollar, those by King being very inferior. A book illustrating St. Peter's was published at Rome in 1684, which shows that building in a more technical manner, and, as a contemporaneous publication, deserves mentioning. The designs of Inigo Jones were not published till 1727, when they were illustrated by Kent, so that our next notes refer to the "Catalogue of the Works of Sir Christopher Wren," which appeared in 1668, with engraved plates by Hulfbergh. The details are exceedingly well shown for the time, especially that of Bow Church spire. The sections are taken through the buildings in perspective, but this is badly managed, more particularly in the longitudinal view of St. Paul's. Curious title-scrolls enrich the pages. The designs of Inigo Jones, incorporated with those of William Kent and Lord Burlington, were engraved by the same artist; the plates (136 in number) are a great improvement upon those in Wren's book, and, on the whole, the style of drawing is suited to the character of the work. No inscription devices are inserted to break the uniformity of the sheets, which include designs from palaces downwards. In 1728 James Gibbs published his "Book of Architecture," which furnishes an admirable series of details in his well-known style. The execution of the plates falls short of those in Kent's book, but some fine views are given from the pen of Hulfbergh; for instance, St. Martin's-in-the-Fields. Most drawings of this date have a gray and monotonous effect, the windows being treated as mere holes in the wall, so to speak. The plates are executed chiefly on copper, in what is called "stroke" engraving, the instrument used being a "graver," which gives a clear and decided line quite different in effect to the freedom of an etching-needle. It is from this period that the school of English engraving dates. Previously the work had been executed by foreigners,—Hollar, Simon, Crispin de Passe, Hulfbergh, and Vanderbank were all foreigners,—and the principal engravings of the time were their productions. Hogarth was one of the earliest English engravers, and his works are familiar to you. We now arrive at the first glimmerings which foreboded the advent of the Gothic revival. All traces of Mediæval principles had ceased to exist in the practice of architecture, and "if there is one period more distinguished than another for its neglect of Gothic, it was certainly the middle of the eighteenth century." For illustrations published at this time, few are of more interest than those of the much-abused Batty Langley, who seems to have enjoyed considerable practice. To his drawings we owe most of the so-called Gothic work of that time, and its spirit was perpetuated by churchwardens and carpenters to almost our own day. Batty Langley's most important book was "Gothic Architecture improved by rules and proportions in many grand designs of Columns, Doors, Windows, Chimney-pieces, Arcades, Colonnades, Porticos, Umbrellos (!), Temples, and Pavilions, &c., with Plans, Elevations, and Profiles, geometrically explained by Batty Langley. Published in the year of grace, 1742." If the title of the book be amusing, the designs are equally so, and the drawings are no better, their chief characteristic being their suggestiveness of cast iron. The "Vetusta Monumentum," in 6 vols., was published by the Society of Antiquaries about this time, and, as an important work, should be noticed. Leaving the works connected with the Gothic revival for the moment, we note, in the words of Mr. Fergusson, "the publication of Dawkins and Wood's illustrations of Palmyra and Baalbec in 1750, which first gave the English a taste for Roman magnificence undiluted by Italian design; but the works which permanently affected the taste of the country were the splendid series of Stuart's 'Athens' in 1762." The care of these plates is deserving of all praise, especially the drawing of the sculpture, though the stippling is overdone, and the views generally are too dark. These remarks refer to the first edition; nothing could surpass the plates published in the last, with the supplemental volume by Professors Cockerell and Donaldson (1830). Reverting again to the Gothic school, it is interesting to remark the entire absence of sympathy for the style, although its later and debased forms seem to have been studied by the votaries of the Classic revival. For instance, in the South Kensington copy of the first edition of Stuart's "Athens" is bound an autograph drawing by the author of a measured elevation to a 3-16th scale of one half of the Patio of San Gregario at Valladolid, in Spain. The style, he says, is "Gothick" (!), but his drawing is shaded in graduated tints of Indian ink the same as in his Classic sketches. Indeed, so entirely lost was the spirit of Mediæval art, that the drawings of those who professed their preference for Gothic work are made in the same feeble way, regardless of all feeling. James Bentham's "History of Ely Cathedral," and Grose's "Antiquities of England and Wales," are of this class. Horace Walpole's villa at Strawberry-hill was the subject of a monograph, dated 1784. The plates vie in wiriness with the design, which is fully illustrated. The next name in my note-book is John Carter. He was the author of several important books, the most valuable being his "Ancient Sculpture and Painting of England," 1786, re-published in 1838. To John Carter's rendering of Mediæval art the revival is greatly indebted; while his writings, extending over twenty years, had great influence in forming a taste for Gothic amongst thousands who had hitherto regarded the style as worthy of no consideration but contempt. His book just referred to is considerably in advance of anything of the kind then published, the details being to a much larger scale than that hitherto employed, while some of the plates are printed in colour. In 1786 the first professional journal in this country was started under the title of the *Builder's Magazine*. It was edited by George Cook, architect and builder, and illustrated by John Carter, to whom its chief merits are due, although his designs, which furnished materials for most of the plates, are all in very bad taste, judging by present standards. The five orders commence the series, as in most of the early apologies for Gothic, including Rickman's "attempt." The admirers of Gothic, however, were not sufficiently numerous or enthusiastic to support a journal of their own, so that the

* Page 1212, vol. xxxiv.

Builders' Magazine only lived through one volume. The enterprise and spirit of the editor deserved perhaps a better reception. He at once proclaims himself a champion of Gothic architecture, and affirms with confidence that nothing can be more adapted for places of worship than that "awful style of building." Among the books of architecture published during the Georgian period, few have more interest to us, especially at the present moment, than the works of the Brothers Adam, whose "Architectural Designs" came out during the years from 1773 to 1822. The plates were engraved by Bartolozzi, Piranesi, and others. The book opens with a beautiful drawing, representing Minerva in the act of pointing a student to Greece and Rome as the source of all true art and literature; but, however worthy the conception, and wholesome the advice embodied in it, we do not find the authors always practising their precept, charming as some of their designs undoubtedly are. For instance, they favour us with a new order, calling it the "Britannic." The design is characteristic of its name, as the lion and unicorn are used as volutes on a composite cap, and are interspersed in the foliage of the frieze, after the manner of a Chevy-chase. This was proposed for Carlton House. The general effect of the plates, like all Piranesi's engravings, is too dark, though the detail is well drawn. Halfpenny's "Gothic Ornaments of York," published in 1795, was an important book in its day, and had the advantage of the author's own hand in the execution of the illustrations, which are metallic in effect. Almost all the grotesque heads, as Mr. Eastlake remarks, are shown leering at each other with *pupilled* eyes, the true notion of sculpture being lost sight of altogether by such vulgar conceits. In 1805, Fredk. Nash, the first of the line, gave to the world his aquatint views of St. George's Chapel, Windsor, with details to 1 in. scale. The general result of the book is not very satisfactory, but there is a thoroughness of purpose in these so-called pre-Puginesque works not always conspicuous in our own contemporaneous productions. In considering the subject of architectural illustrations, few names deserve a higher place than John Britton, the author of some seventy works, a large number of which were illustrated. Among the most important were the "Antiquities of Great Britain," 1814, and the "Cathedral Antiquities," which followed, the former work having views by Prout, with plans and a few details, and the latter book was illustrated by the celebrated Mackenzie and Le Keux. The picturesque, however, predominates over the technic in both these works, the geometrical drawings being to an exceedingly small scale. It remained for the elder Pugin to supply this want of knowledge and insure those qualities to the illustrations of architecture which render them of value. Mackenzie and Le Keux had already given more attention to detail and refinement than any one, and, under the professional direction of Pugin, they soon surpassed even themselves. Pugin and Le Keux published their "Antiquities of Normandy" in 1827, and this work is so well known that description is unnecessary, especially since the recently-published edition under the direction of Mr. Phené Spiers. There is one peculiarity worthy of remark in all the elder Pugin's drawings; it is their exceedingly fine line, enriched with back-lining, which at once destroys all breadth of feeling, and gives a perplexing effect. This practice of back-lining was not confined, however, to Pugin, and is to be observed in several important books published years after. The younger Pugin first brought about a change in the system, but, to quote an authority, "there is a fizziness and action in all his plates which may be looked for in vain in the real thing." If the influence of the works of Pugin is more vivid to us, the important researches of Cresy and Taylor must not be overlooked. In 1829 they published their work on the Middle Ages in Italy, illustrated by steel plates, the tinted sheets being coloured by hand. Their celebrated work on Rome appeared in 1821, with 135 plates from actual measurements taken on the spot. The views are well etched by George Taylor, but the details are poor specimens of chalk lithography, excepting those of the larger caps. The geometrical drawings are in outline, and it is worthy of remark that the various materials and the manner of construction employed are carefully shown. The last edition of this work was published just before Mr. Taylor's death, a year or two since. Turning once more to the Gothic school, the name of Lewis Nockalls Cottingham is conspicuous. To him we owe the first full-sized details of architecture ever published. They appeared in the book illustrating Henry VII.'s Chapel, Westminster, dated 1822. The plates are in outline, very well drawn. The general drawings are spoilt by over-etching, backlining being used to complete the confusion. Cottingham also tried his hand at lithography, with which he prepared his series of working drawings of "Gothic ornaments," a rather well-known book. The work was not so satisfactory as the former work, which was probably owing to Cottingham's want of skill with the crayon. The most interesting plates were those of an original design for a mansion in a late phase of Tudor. The elevations are in pure outline, with the windows finished in jet black. This is the earliest example of the practice till lately so fashionable of blacking in the windows in drawings of Gothic work. Sea-green is now supposed to be the more correct thing. In Classic architecture the first full-sized drawings published were probably those of the Erechtheion at Athens, by Henry Inwood, architect of St. Pancras Church; they appeared in 1830. Owen Brown Carter, of Winchester, was considerably in advance of his day, both as an architect and draughtsman. Some of the leading men in the profession at the present time were his pupils. He published several large plates, of great beauty, his earliest work being some views of Winchester, engraved by Le Kinx. Carter also contributed illustrations to "Weale's Quarterly Papers" on stained glass, but chromo-lithography was then in its infancy, and the result is below par. For steel engravings of this date Winkle's "Cathedrals" deserves notice, and Henry Shaw's "Details of Elizabethan Architecture," 1834, should not be passed over. The engravings were by Shaw himself, the style of drawing already referred to being employed, but with more success, since it lends itself to the style of architecture shown. Some of the sheets are tinted by hand, and some are chromolithographs. I have not yet mentioned mezzotint engraving, which was very generally employed during the early part of the present century for popular illustrations of architecture. It was invented in 1643. The impression which a mezzotint plate yields resembles a drawing executed in washes of colour. The process is exactly the reverse of that adopted in other styles of engraving. The whole of the plate is covered with a uniformly dark barb, or ground, the design having been previously traced on the surface of the plate in the usual manner. The highest lights are then scraped away and burnished, the second lights being treated next, and so on, till the work is finished, leaving the untouched ground for the darkest parts. Aquatint is similar in character to mezzotint, and is a more recent invention. In either, an Indian-ink or bistre drawing can be very closely copied; but, like all coloured drawings, the tendency is to obliterate the details of a building, so that they may mean anything. Illustrations were published of John Nash's Royal Pavilion at Brighton, in this style. They were drawn by Pugin, showing the elaborate and coloured decorations by these means. Lithography soon superseded all kinds of engraving for architectural work, and, by the time we are now speaking of, had reached great perfection, as seen by the next books to which we will refer, viz., Joseph Nash's "Architecture of the Middle Ages," and his "Mansions of the Olden Time in England," dated 1838–9. C. J. Richardson at the same time published his "Remains of Elizabeth and James." All three books are admirable examples of chalk lithography, more particularly Nash's works. Richardson was more technical in his plates, giving details in outline, as well as pictures, including several in colour. With reference to the so-called fac-similes of John Thorpe's drawings, given by Richardson, they are in chalk lithography, and by no means do justice to the originals, which deserve the closest study. These are to be seen in Sir John Soane's Museum, and a bound copy of tracings, with others, will be found in South Kensington Museum. Speaking of chalk lithography, the name of George Hawkins deserves a high place. His work in this style has never been surpassed. Wm. Richardson's "Monastic Ruins of Yorkshire," published in 1844, and several churches of the day, were drawn by his hand. J. S. Cotman's "Etchings of Norfolk," published in 1838, gave principally views, while some of the plates of doorways are good in detail. Continuing our notes, we have to record the inauguration of our present professional press. Before doing so, a deceased relative who did good work for thirty years must not be forgotten: I refer to the *Civil Engineer and Architect's Journal*, which commenced its career in 1837, five years before the *Illustrated London News* first saw the light. Its illustrations were rough woodcuts for some time, but its later numbers were enriched by lithographs by the well-known Jobbins, who also executed the plates of F. T. Dollman's "Analysis of Domestic Architecture," and J. K. Colling's "Gothic Ornaments." Examples of Jobbins's careful work are given, but his care hardly supplied his want of technical spirit. The *Builder* was started in 1843, and it consisted of five pages of letterpress, with no illustrations, taking more the form of a newspaper. The published price was 3d. Its first illustrations were of a very general character, but soon assumed a more strictly architectural form, giving wood-engraved views of buildings somewhat in the manner it has maintained ever since. The first instance of lithographic illustrations in a serial journal appeared in *Weale's Quarterly Papers*, which were commenced in 1844. This work consisted of essays on various subjects of interest to the profession. The *Building News* published its first number in 1855. A somewhat similar paper appeared in 1849, called the *Architect and Building Operative*, but it only lasted two years. Retracing our steps to 1845, we note the publication of Mr. Edmund Sharpe's grand work, the "Architectural Parallels," in two folio volumes, giving elevations, plans, sections, and views in a thoroughly technical manner. The geometrical drawings were made on the stone by T. Austin Paley and R. J. Withers, the views being lithographed by Haworth Fielding. Two and three tints are given to some of the plates, much to the assistance of the perspective views. Mr. Sharpe opened a new field of interest, and has continued to labour in it even to this day, not only delineating the purer forms of Gothic with a thorough knowledge of their construction and *rationale*, but arranging the subjects so that comparisons can be instituted, and the peculiarities of each example appreciated. Mr. Sharpe's books alone deserve a paper to describe them, for no one has done more for the development of true architectural illustration. Professor Willis was the first to apply colour to indicate the several periods of English Gothic in the plans of churches, but to Mr. Sharpe we owe its further application to detail; thus by referring to the plates of his works on mouldings one can tell at a glance the periods of the specimens shown. The colours used are adapted from the prismatic spectrum; thus showing the gradual progress of art, and indicating its rise and fall. In 1847 Messrs. David & Raphael Brandon published their "Analysis," followed by "Parish Churches" and "Gothic Roofs," a most valuable series of books. These works are too well known to need description; and the same may be said of Mr. James K. Colling's beautiful books, commencing with "Details of Gothic Architecture," dated 1851. Billings's "Baronial Antiquities of Scotland," published in 1855, deserves notice. The volumes are illustrated with steel engravings by Le Keux. We now have reached the time when Continental Gothic began to attract attenton. One of the earliest collection of drawings of this style is that found in King's "Study Book," in four thick volumes, bearing the date 1857, a former edition being published at Bruges. The plates are of special interest, as being chiefly the work of Mr. Norman Shaw, drawn on zinc plates in outline. All the subjects are shown to the same scale, which has the fault of being too small, necessitated, no doubt, by the size of the larger subjects. Back-lining is employed, and the carving is not particularly well drawn. "Wick's "Towers and Spires" is a big book, published in 1858, consisting of beautiful views in chalk lithography. Mr. Norman Shaw's "Sketches on the Continent" were completed in the same year, Mr. Nesfield's "Specimens" following four years later. Both books are illustrated by chalk, the palm being generally awarded to the lithographs in Mr. Nesfield's book, which were executed by Alfred Newman. The influence of these "twin sketch-books," as they have been called, was no doubt very considerable in the impetus they gave to the then increasing taste for French Gothic, and the more muscular forms of construction. This good work (for in one sense it was good, however much we may regret the continued neglect of the English styles) was taken up by Mr. R. J. Johnson, who published his book of "Early French Architecture" in 1864. Here, to my mind, we have the type

of what an architectural sketch-book should be. The plates, all drawn and lithographed by the author, are almost exclusively devoted to measured drawings, with a few perspectives, chiefly in outline, not fizzed and fussed up with wriggling lines all over the wall surface, with the detail at most only suggested, like some of the views we see published, said to have been "finished on the spot," and interesting, no doubt, as examples of time sketching, but wonderfully inaccurate, and misleading to a degree. Mr. W. Galsworthy Davie's "Studies in France" form the last sketch-book which has been published; many details are given full size, and some of the sheets are in colour. The "Spring Gardens" and the Architectural Association sketch-books are also admirable collections. The plates are chiefly transfer-lithographs, executed by the authors. Among the many works of a more pictorial character we may mention the magnificent etchings by Mr. Ernest George, the anastatic drawings of Sir Digby Wyatt, and the photo-lithographed pen-and-ink sketches from Italy, by Mr. Street. Of wood-engraved sketches, those by H. W. Brewer and Samuel Read are both well known and appreciated. Before concluding this part of my subject, some of the numerous works on colour decoration illustrated by chromo-lithography must be named, especially those by Owen Jones, J. B. Waring, and Sir M. Digby Wyatt. Their influence in forming and extending a correct knowledge of colour has been of the widest kind. Among works of this class, more recently published, Racinet's "Polychromatic Ornament" is conspicuous, and so is the "Keramic Art of Japan," by Messrs. Audsley and Bowes, now in progress. The remainder of the paper was devoted to the description and discussion of the processes now available for the production of architectural illustrations, including wood-engraving, plate-engraving on steel and copper, lithography, zincography, chromo-lithography, photo-lithography, steno-chromy, the autotype, heliotype, Woodbury, anastatic, and aniline processes, together with photography itself. While each of these methods of illustration had certain advantages, in the author's opinion the most suitable, all things considered, was photo-lithography.

A brief discussion followed.

HEALTHY HOUSES FOR GREAT CITIES.

DR. RICHARDSON, F.R.S., delivered his second lecture* on this subject at the London Institution, Finsbury-circus, on Monday evening last. He said that in his ideal house each floor would be independent of the others, and as each floor was dissociated from those above and below it, and from the basement, by the arrangement of having the staircase in a separate turret, the warming and ventilation would be easily effected. Before dealing with that subject, however, he would refer to the walls and floors of the rooms themselves. A really sanitary wall-covering, which should be at the same time agreeable to the sight, was a desideratum. Paperhangings afforded the most ready means of covering walls, but even when the designs were artistically good (which was rarely the case), paper was an objectionable material. The heavy "flock" varieties retained dust and particles of all kinds of impurities, while many other papers contained poisonous colouring-matters, such as arsenic, which were apt to be dislodged and inhaled by the occupants of the rooms. Then, again, the paste which was used to fix the paper on the walls was exceedingly objectionable, especially for walls in the least degree exposed to damp, as the moisture acted upon the paste, and caused it to moulder and to give off offensive odours. In fact, for walls and ceilings there was no material entirely good except such as could be thoroughly and entirely cleansed from time to time, either by fire or water. A cement was now made which answered these requirements fairly well, but it lacked in adaptation for ornament,—a fault of which no wise sanitarian could afford to be oblivious. What was wanted for wall and ceiling coverings was a material that could be fixed without paste, that would be as convenient as paper, and which, while admitting of artistic treatment on its surface, would bear repeated ablutions. Mrs. Siddons was related to have once startled a linen-draper's assistant by demanding, in her most tragic tones, "Will it wash?" This was the question which he (the lecturer) should like to be the test of fitness for any wall or ceiling covering which the decorator proposed to use in a house which was constructed with regard to the requirements of health. In this connexion, however, he would suggest to the aspiring patentee that he need not aim at exceeding durability in washable wall surfaces, for people would not always be content with seeing the same patterns on their walls, however excellent they might be, and one artist clearly ought to let his brother artists live. In one of his previous lectures he had suggested a combination of ceramic ware and flat sculpture as a wall surface, but if this were carried to excess it would give a mausoleumish character, so to speak, to the rooms, and would have a deadly-lively effect which would be scarcely tolerable. For some parts of the house, as kitchens, cupboards, &c., there was one excellent material for wall-coverings, viz., starred or frosted galvanised iron. This could now be produced very thin and of perfect colour. Its advantage was that it would wash like glass, or it could be cleansed without water, inasmuch as it would bear without injury a brush of flame from a Bunsen burner applied to its surface. Blocked-out an inch or two from the wall, it would give great internal warmth, and would exclude all damp from the wall beyond it. An architect for whose opinion he had great respect, while admitting the advantages of such an impervious wall-surface, deprecated it on the ground that unless special precautions were taken to prevent it, water would condense upon the surface. Dr. Richardson said this was a strong argument in favour of such a mode of construction, for if damp were present in a room it was as well to know it. When he had to sleep in a strange bedroom, he always ascertained whether the *room* was dry, for his experience told him that colds and congestions were more frequently caused by damp bedrooms than by damp beds. How did he ascertain whether a bedroom was dry? He asked the window-panes, the marble washstand, the looking-glass, and the fire-irons. If they were wet or damp, he knew that he was not safe in the room. If, on the other hand, they were dry, he knew he was safe. Many rooms had walls which, although apparently perfectly dry, were in reality saturated with damp. The best methods of preventing damp walls were, firstly, to cover them with cement or artificial stone; and secondly, to have the decorative surfaces blocked out in panels or medallions, leaving apertures behind for the introduction of warm air. In the present day it was quite a common thing for walls to be constructed of materials which would never thoroughly dry, or which, if they ever did dry in any exceptionally warm weather, would readily reabsorb moisture on the first opportunity. In his work on the "Diseases of Modern Life" he had related instances showing the injury done to health by damp houses, a noteworthy case being that of a row of pretty houses, twenty in number, in one of the metropolitan suburbs, in which, within a year or two of their completion and occupation, seven cases of tubercular consumption, and fourteen cases of acute rheumatic fever, had occurred, all being undoubtedly attributable to the dampness of the houses. Before leaving the subject of wall-coverings, the lecturer urged that where paper-hangings or cognate materials were used, the patterns should be not only artistic, but such as would not, when seen otherwise than directly in front of the eye, assume weird and hobgoblin-like, not to say demoniacal, shapes. Many such patterns were in vogue, however, and their effect upon nervous people and children was very serious. Nor was colour less important than form. The two colours which most largely prevailed in Nature, the blue of the sky's expanse, and the green of the fields, were particularly healthy, while as occasional or relieving colours, to be sparingly introduced, nothing could be better than the tints seen in sunsets. As to the flooring of rooms, the margin of every room ought to be constructed, for a space of at least 2 ft. 6 in. from the wall, of some perfectly impervious material, capable of being thoroughly washed and dried. For this portion of the floor, cement and tiles might be used with advantage, the centre of the floor being boarded, and over the boarded portion the carpet might be laid to the margin of the tiles. Better still would be a beeswaxed wood floor, with small and readily removable carpets. The fashion which now prevailed of stretching a carpet to the utmost limits of every nook and cranny of a room, and of allowing it to remain in that position for months at a time, could not be too strongly condemned. No brush or broom could effectually cleanse a carpet so fixed, which became the receptacle of all sorts of organic and inorganic matters, which were raised in a cloud of dust by every footfall. It was true that the ciliary apparatus with which we were provided for the protection of our lungs was calculated to arrest a great many of the floating particles of matter, but after all, the cilia were only intended to bear fair wear and tear, and when they were subjected to the severe test which was imposed upon them by people who inhabited rooms carpeted in the manner he had referred to, they could hardly be expected to do their work well. Besides, even when the cilia did intercept the particles of solid impurity which floated about in such rooms, they were only intercepted from the lungs, and passed into the stomach,—by no means a pleasing reflection, considering the heterogeneous nature of the dirt likely to be found on the surfaces of such carpets. As to warming and ventilation, the lecturer said that the vestibule which he proposed to form on the ground-floor of his model house was an arrangement which would lend itself with peculiar facility to the warming and ventilation of the building, which was rendered additionally easy owing to the isolation of the staircase. The most suitable degree of temperature for indoor life was 62° Fahr., and people ought to regard a thermometer as essential as a time-piece in a room, so that they might be able to maintain an equable temperature throughout the day,—a point of great importance to those whose occupations were sedentary. The temperature should be maintained at the same standard in all parts of the room, but in many rooms the temperature often varied in different parts as much as 20° at one moment. By the warming-stove which he would have placed in the vestibule, as a means of supplying warm fresh air to every room in the house, he would warm and at the same time ventilate the rooms for at least eight months in the year. As supplementary means of warming and ventilating, he should not hesitate, in building a house for himself, to discard all plans which presumed to ventilate by admitting cold air from an outer window or shaft, and he should follow the plan of admitting warm air only by means of the Galton and Calorigen stoves. The former was the best for fixed fireplaces, and the latter for movable stoves and for gas. As to artificial lighting, gas would, no doubt, continue to be preferred, owing to its great convenience as compared with candles and hydro-carbon lamps, and notwithstanding the deleterious gases given off during its combustion,—gases which were so noxious and hurtful to animal life that even the most effective means of ventilation would only partially counteract them. But on no account should gas ever be laid on in bedrooms. He had an idea that a great improvement might be made in candles, so as to increase their illuminating powers; but he believed that the great desideratum in respect to artificial lighting was the practical development and application of the electric light. Science had done her part in this matter, and he believed that nothing more was wanted than capital and enterprise to put us in a fair way of being able to instantly illuminate our dwellings at night with a flood of light as bright as that of the sun. As to water-supply, the lecturer said he would provide a separate cistern, open to the air, for the supply of the closets, while the cistern for water used for drinking and culinary purposes should be covered in (though not so as to prevent the air getting to it) and provided with a filter. Notwithstanding that he would thus provide a separate water-supply for the closets, he would exercise the utmost care in the ventilation of soil-pipes of closets, &c. In conclusion, Dr. Richardson said that the ideal house which he had endeavoured to describe would not be perfect without one more room, to be specially devoted to purposes of sickness or disease. When an epidemic broke out in a house there was usually no room in which the afflicted could be placed with a view to complete isolation from the rest of the inmates. With a singular improvidence, we provided billiard-rooms, smoking-rooms, reading-rooms, and even ball-rooms, but we made no suitable provision for that which was common to all men,—sickness. To his model house, then, he should add such a room, which need not be a useless room at any time. This room he should provide with special appliances for regulating the temperature and light, and would make its walls,

* For abstract of first lecture see p. 33, *ante*.

roof, and floors of such material as would enable them to be purified by fire after use. With such a room at his command, the physician would have an important ally in the treatment of disease. The general principles which he had laid down with reference to a dwelling-house he would, of course, carry out in public buildings, workshops, manufactories, offices, stables, and business premises of all kinds, and he believed the day would come when due attention would be given to the sanitation of all such buildings.

THE RHINE-MEUSE CANAL.

On the 28th of December, a meeting of some importance took place at Crefeld, the object of the gentlemen assembled being the promotion of a projected canal, which is to connect the Rhine with the Meuse, or Maas, and for which plans had been prepared as early as 1873, by Professor Henket, of the Polytechnicum of Delft. The idea of such a canal is not modern, schemes for constructing a waterway between the two rivers having been brought forward from time to time centuries ago, without, however, any practical solution. Various circumstances combined to defeat the project; sometimes there were obstacles of a practical nature which could not be overcome; at others, political events prevented its execution. Notwitstanding the adverse experiences of the past, it was resolved, in 1873, to take up the old project once more. Professor Henket, who, it should be added, has had ample practice in the construction of canals, was commissioned to prepare plans, and in a short time he drew up a general scheme, which, submitted to other experts, was approved, and detailed plans prepared from them. The latter found such favour in practical circles that the project gained new and influential supporters.

The canal, according to the plan of Professor Henket, is to begin at the Meuse near Venlo, to run then parallel with this river until it reaches the Fort of Ginkel, next turning to the east and north-east to the North Canal, the direction of which it is to follow along Herongen and Niederdorf as far as Krickenbeck, near Herschel. From here it will lead past Müllem, passing north of Kempen, and north and east of Hüls, as far as Crefeld, whence it is to run in a north-easterly, then easterly, direction to the Rhine, which it is to enter between Uerdingen and Hohenbudberg. There is already canal communication between Rotterdam, Utrecht, and Gorinchem, and from Gorinchem along the Meuse and the Dieze with Hertogenbusch, which extends, under the name of Zuidwillemsvaart, along Helmond, Weedt to Mastricht, and from here further to Liege and Namur. Antwerp is connected with the Zuidwillemsvaart by a canal into which branch off other canals from Turnhout, Hasselt, and het Kamp van Beverloo; on the other hand, a canal leads from Antwerp to Brussels, and from here to Charleroi, and through the Sambre to Namur. To effect a perfectly practical communication, the Zuidwillemsvaart had to be connected with the Meuse near Venlo. The construction of the short canal from Meyell to Venlo has already been commenced by the Dutch Government.

By way of the Rhine and the projected Emsche and Rhine-Elbe canals, communication would thus be effected with the great centres of commerce on the Rhine, Weser, and Elbe, the Westphalian coalfields, and the North Sea. The Rhine-Meuse Canal is, besides, projected in such a manner as to ensure without difficulty the connexion of the whole district north of Kempen and Hüls by branch canals with it. This connexion will be of the greatest importance when once the coal deposits near Vluyn, Rheurdt, in the valley of Niers, &c., begin to be worked. But the undertaking will be of far greater importance for the coalfields of Westphalia, by enabling them to compete, by cheaper transport, successfully with English coal in Holland, Belgium, and leading to a far more extensive export. The Rhine-Meuse Canal, consequently, will ensure two advantages: in the first place, an important international water communication will be established between Holland and Belgium on the one hand, and the Rhine and other German rivers on the other; secondly, a local intercourse by water will be opened up which will promote the further development of the district between the Rhine and the Meuse, and is at the same time of some importance for the coal deposits on the left bank of the Rhine.

The total cost of the undertaking is estimated by Professor Henket at 445,700*l.*, or if, as is to be expected, the canal is constructed for double navigation, at 600,000*l.*; the yearly expenses for maintenance he reckons at 7,100*l.*

On January 24, 1876, a committee was definitely formed for the purpose of taking the preliminary steps. The plans of Professor Henket were submitted to the Prussian Government in June of the same year, and finally sanctioned.

THE FIRE OF LONDON.

On Monday evening, Mr. Cornelius Walford, Fellow of the Institute of Actuaries, read a paper on the "Great Fire of London," before the London and Middlesex Archæological Society, in St. Martin's-place, Trafalgar-square. Without insisting on the reported but unverified prophecies of "Mother Shipton," or on the vague threats of the burning of the city which are to be found in the "Butcher's Blessing," published in 1642, he brought forward an advertisement from Lilly, in the "Perfect Diurnal" of 1655, in which he recants a prophecy which he had formerly made, and which, if he had only stuck to it, would have established his reputation as a prophet. It was observed by a writer in the *Pall Mall Gazette* that the same combination of the planets was in the ascendant when the fire of London in 1666 broke out and when the Alexandra Palace was burnt down. He quoted an extraordinary opinion of Malcolm, to the effect that "London was set on fire by the Government in order to annihilate the Plague." Without accepting this solution, it was quite certain that one effect of the fire was to annihilate the plague,—a feature alluded to by Dryden when he wrote of "the chemic flames." Mr. Walford then passed on to an estimate of the loss in money actually caused by the fire, and the legislative measures adopted by the Government and the civic authorities in consequence of it, and quoted largely from the Act of Parliament of 1667 for rebuilding the City, one part of which enjoined that a wide embankment should be made along the Middlesex shore of the Thames from the Tower to the Temple Stairs,—a very small portion of which injunction has been carried out, though two centuries have passed by. One of the orders of the civic authorities was to the effect that every quarter of the City should, by the ensuing Christmas, be provided with buckets, ladders, and "hand-squirts" for the immediate extinction of fires; and some of these "hand-squirts" were still in existence. He next entered into the direct and indirect results of the fire, which he contended gave a beneficial impetus to trade; for that if the fire had not occurred, London could never have become the commercial capital of Europe. The Great Fire, too, gave birth in England to the system of fire insurance,—in itself no mean or unimportant benefit. He then drew attention to the plan, so easily adopted by skilled engineers, of blowing up houses in order to stay the fire; to the curious trade advertisements which appeared in the papers after the fire as to the removal of the country carriers' offices; and to the absurd and malevolent inscriptions placed on the Monument and on the house in Pudding-lane where the fire commenced, imputing the origin of the fire to the Roman Catholics.

ENGINEERS AND ARCHITECTS.

The Institute of France have offered a gold medal worth 120*l.* for the best essay showing the differences, theoretical and practical, which divide the engineer from the architect. It must show the advantages and inconveniences of the division between the two professions, and deduce from that what ought to be done in the interest of art,—whether a clearly-marked division or a complete fusion of the two. The essays are to be sent in by the 31st of December, 1877.

LIPSCOMBE'S GLAZED ARCHITECTURAL STONE.

Mr. Lipscombe, whose name is well known in connexion with filters, has patented a material under the above title which is extremely hard, and is cleaned more or less by every shower of rain. The designs of some of the specimens exhibited in Queen Victoria-street are not so good as they might be, but that really says nothing against the material, because any design can be executed in it, and therefore those who employ it may give it what shape they please. Its cost is much less than that of carved stone.

THE SOUTH-WESTERN RAILWAY EXTENSION WORKS AT NINE ELMS AND WATERLOO.

The London and South-Western Railway Company are at present engaged in making extensions of considerable magnitude in the neighbourhood of Nine Elms and Battersea, as well as at Waterloo. The still further enlargement of their Nine Elms goods depôt, which has already been several times extended within the last few years, having been found to be quite indispensable for the purposes of the traffic, the main line, as well as the Windsor route, are being diverted to the extent of more than half a mile in length, between the Queen's private station and Battersea. The diversion of the two lines will admit of the goods depôt being extended to the extent of seven acres, the portions of the main and Windsor lines hitherto used for the general traffic, and which are carried alongside the goods depôt area, being about to be altogether removed. The works are now actively in progress, several hundred artisans and labourers being employed upon them. The diverted line, from the Wandsworth-road, is for some distance carried over an embankment, and thence continued on a brick and iron viaduct, with skew openings, thirteen in number, and 14 ft. wide, so that lines of rails may be laid between the piers if necessary. From the viaduct the line will be carried on thirty brick arches, of 20 ft. span, divided into groups of ten by three large resisting abutments, and then along an embankment with retaining walls to New-road bridge, Battersea, where the diversion again joins the old main and Windsor lines. A recess is provided over every other pier, and also along the retaining walls, so as to give ample protection to the workmen employed upon the permanent way, whilst the arches will be used as carriage-repairing shops, stables, and for other purposes. The works are expected to be completed, and the diverted line opened for traffic, in the course of the ensuing summer, when the removal of the old lines and the laying out of the additions to the goods depôt will be proceeded with. It may be added that in connexion with the diverted line the Company intend to erect a new passenger-station at Queen's-road, Battersea, for the accommodation of the large and increasing population springing up in that locality. The contractor for these works is Mr. G. Shaw, of Earl-street, Westminster, and the estimated cost, including the intended station at Queen's-road, is about 70,000*l.* In addition to the above-named works now in progress, the Company contemplate a still further extension of the station at Nine Elms, and for this purpose they are applying to Parliament for powers to purchase a large area of land and buildings on the west side of Wandsworth-road, and also in Nine Elms-lane.

The works at Waterloo for the enlargement of that station, which have been going forward during the last two years, are also on a scale of great magnitude, involving the purchase, from time to time, of extensive blocks of property. A considerable portion of this enlargement has already been completed, but other works of a costly character yet remain to be carried out before the intended enlargement is finally finished, and these are now in progress. The station has already been extended on the north-west side, in the direction of York-road, and the enlargement now going forward is on the south-east side, which, in addition to giving increased station accommodation, will also open out improved and much more direct approaches from Westminster Bridge-road and the locality immediately surrounding. In order to carry this out, Aubin-street, on the south-east side of the station, has been diverted, and a new street formed running in the direction of Westminster Bridge-road, the present viaduct being widened with the view of giving increased facilities for vehicular traffic to and from that thoroughfare The works likewise include new booking-offices and platforms for the use of the suburban traffic, which will admit of a material widening of two of the main-line platforms. All the above-named works are being carried out under the superintendence of Mr. Jacomb, the company's engineer.

SURVEYORSHIP ITEMS.

Derbyshire.—Mr. Bridgart has resigned his appointment as county surveyor of Derbyshire.

Carlisle.—Mr. Edward T. Morley, for ten years city surveyor of Carlisle, died very suddenly a few days ago.

TIMBER NOMENCLATURE.

THE *Timber Trades' Journal* gives some further notes on this subject. The writer says:—Thorn, although generally associated with our cultivated hedges, had in its Anglo-Saxon form a more extended meaning. It implied a tree, though not of the first order. In this sense it is used in the "buckthorn" and the "blackthorn." From the study of place-names in mid-England we are led to infer that thorn implied a wood; a portion of Sherwood Forest was known as "Thorneywood Chase," and part of Hatfield Chase—an extensive wood—was known as "Thorne Waste." Indeed, "Thornhills" and "Woodhills" occur in such order that we are led to the conclusion that they are synonymous terms.

Timber is from the Anglo-Saxon "timber" and "tymber." 1. Wood; 2. A tree; 3. A frame structure or a building. From the fact of building being constructed in wood, timbering (*getimbrian*) was the equivalent of building. At the burning of the first wooden church or cathedral at York, in 626, a larger church was ordered to be *getimbrian* of stone. It does not appear to have been a term much used in a territorial sense. Henry II. confirmed the grant of the church of Tymberland to Thurgarton Priory, Notts, which may or may not be the village of that name in Lincolnshire. From this we may infer that the term applied more to the wood in a dead state than to that of the living tree; in which sense it has undergone little or no change.

Tree, from the Anglo-Saxon "treow." 1. A tree; 2. Wood; 3. A piece of wood. In the latter sense it is used in shipbuilding and carpentry, as "cross-tree," "roof-tree," "side-tree," &c. "Treow-wyrhta," the tree or wood worker, was the old term for carpenter before we borrowed the French one of "*charpentier*," and "treow-geweorc,"—"tree work," was the primitive of the now general "woodwork."

Wainscot is a word of doubtful etymology. Bayley says it is from the Belgian "wandschote," wall defence or lining. Ogilvie says it is from the Dutch "wagenschot," which evidently means wagon lining or covering; whereas Loudon says it is from the Dutch "ward," a wall, and "schoten," to suspend. These derivations are evidently sought for, the various authorities having in view the fact of wainscot being largely used in the Tudor and Stuart ages for wall framing or panelling, which appears, probably from being made of oak, to have taken up the name of wainscoting. As wainscots were articles of import centuries before this time, it is highly probable that these authors were in error. In the *Liber Albus* of the City of London in the reign of Henry II. (1215–1266), we find the following note:—"For every hundred of boards called weynecotte one halfpenny to be paid as custom upon landing at Billingsgate;" and "wainscot" formed items of assessment in the cargoes of nearly every ship arriving in Hull, 2 Henry IV. (1400). The writer records these notes to assist in the solution of this knotty term, the accepted derivations of which are in no way satisfactory. It may be further noted that wainscot in the Swedish and German dialects bears the sense or meaning of wall-lining or panelling.

Walnut, a name that occurs with little variation in the German and Swedish dialects, is from the Anglo-Saxon "wealh-knut," the foreign nut. "Wealh" was a term our rude forefathers applied to anything foreign, hence "wealh-men," Welshmen, the Celtic race formerly inhabiting this country, but driven by them into the fastnesses of the Welsh mountains.

Wood is a grand old Teutonic term. It is the Anglo-Saxon "wude," German "wald," and the Swedish "ved." It means,—1, a tree; 2, the substance of a tree; 3, a collection of trees. "Wude-beam" was the primitive term for forest-tree, and "wood-hewer" and "wood feller" of woodman. The mention of this term reminds us of the Scriptural allusion to "the hewers of wood and the drawers of water." In early times the calling of a wood-hewer was of that importance that it stood for a family name with the followers thereof; hence the common surnames of Woodyeare, Goodyear, &c.; by the same rule the progenitors of the wood-fellers are recognised under the *nom de plume* of Goodfellow. In a territorial sense, "wood" has given its name to numerous families, some of which may be recognised under the corrupted forms of "Good" and "Hood." Robin Hood, the popular myth of the Middle Ages, is supposed to be a name or term drawn from his calling,—"Robber of the Wood," as robbers were called "Robin-men." "Robin" is given in the "Dictionary of Phrase and Fable" as highwayman. Perhaps one of the most remarkable uses of the term "wood," was in application to timber dealers or merchants, whom we anciently called "Wood-mongers," the equivalent of the Swedish "ved-handare." The writer has documentary evidence of the use of this serio-comic term in London as early as 1350, and in Hull as late 1650.

Wright, the short or abbreviated form of "wroughter," a workman, may, in conclusion, be noticed. It is curious that it has affixed itself to those trades associated with wood; thus evidencing the former importance of these crafts or callings.

BUILDING OF LIGHTHOUSES OFF THE ENGLISH COAST.

IMPORTANT DISPUTE.

A BONE of contention has been found in the Bristol Channel, consequent of a £. *s. d.* contract or estimate that bids fair to eventually bring about some change in the mode of deciding on the erection of lighthouses.

Trinity House, on Tower-hill, it may at the outset be necessary to state, was, or is, "a kind of college in Deptford, belonging to a company or corporation of seamen, who, by a king's charter, have power to take cognizance of those persons who destroy sea marks, and to take care of other things belonging to navigation"; one of the chief of "other things" being in these days the important one of building and feeding lighthouses, and levying tolls on shipping.

It is a close and rich corporation, possessing arbitrary powers that the Lord Chief Justice of England cannot order; the Admiralty Courts of Law do not appear to have any authority over, and the Legislature allow to act as the "Brethren" list. The Lords of the Admiralty are as powerless as the Lords of the Treasury in the government of Trinity House, and tolls are levied on shipping entering English ports for lighthouse dues, that cause serious complaints from foreigners as well as British shipowners, and from which there is no appeal. As at present constituted the chief men in this close corporation are the master, Capt. H.R.H. the Duke of Edinburgh, a deputy-master, two secretaries, one accountant, several Brethren and professional assistants. That handsome salaries are attached to each official, ornamental or useful, is known to be the case, but we are not aware that any balance-sheets are published. The funds at the disposal of Trinity House are, however, believed to be so considerable that lighthouses could be built and kept up at every vantage point on our sea-board, and for the want of which wrecks occur that might be avoided.

The question has now arisen as to the right of the Trinity House to build lighthouses off the English coast, and the fitness of the Trinity Brethren to define absolutely the sites for such useful beacons. The maritime public of the Bristol Channel, especially of the ports of North Devon and Bristol, Cardiff, Gloucester, Newport, Swansea, &c., have boldly challenged the authority of the Tower Hill Corporation to erect a lighthouse in the dangerous channel, where, in the opinion of the sea-coast men, it would be unsuitable, if not dangerous.

The Chambers of Commerce and ship-owners are demanding to know "what are the proper limits of the authority of the Elder Brethren,—whether it belongs to them to decide arbitrarily on sites for lighthouses, or whether their duty is to avail themselves of the best assistance which can be afforded by the localities chiefly concerned, and by the interest upon which the burden of the first cost and maintenance will fall, and to give effect to their judgment."

It appears that mariners having demanded another lighthouse in the Bristol Channel, the Elder Brethren of Trinity House peremptorily decided upon a site called "Bull Point." Another light to a very dangerous part of the coast was hailed with great satisfaction by the Devonians and seamen, but the site of Bull Point was seriously objected to, for the record of wrecks had made no black mark on this Point, while against Morte Point, and especially Morte Stone, the wreckage recorded was fearful.

After much correspondence between the chambers of commerce of the ports interested, the question has resolved itself into one of £. *s. d.* The site of Bull Point being the cheapest to build on, say estimate 10,000l.; Morte Point 20 per cent. more; and Morte Stone, very much higher, the inferior position of Bull Point is selected. The Elder Brethren back their selection of the site with a few nautical reasons, that the practical mariners and coastmen declare to be valueless, and the latter are unanimous in favour of the most expensive site.

Trinity House speak of the dispute as chiefly of interest to local convenience, forgetting that the Bristol Channel is navigated by the ships of all countries, and which require dangerous places to be indicated by lights, more than shipping familiar with the coast.

Should the Trinity Corporation persist in building on Bull Point, the matter is to be brought before Parliament, and the issue may be a Land Board to determine on the sites of lighthouses off the coast, composed of architects and engineers in lieu of decayed mariners and ornamental Brethren. Such is the opinion of the maritime public off the Bristol Channel, an idea the ports of London and Tyne have some time considered to be both feasible and advisable.

ST. THOMAS'S CHURCH, NEW HEY, NEAR ROCHDALE.

ST. THOMAS'S CHURCH has been erected at the sole cost of Messrs. William & James Heap, flannel manufacturers, of New Hey, in memory of their late esteemed father, Thomas Heap, in accordance with designs prepared by Mr. H. Lloyd, of Bristol, architect. It was commenced in August, 1875. The plan of the church is cruciform, and it has a tower and spire. The style is the Decorated. The height of the tower and spire is 148 ft.; length of the nave, 82 ft.; width, 24 ft.; the height to the ridge of the roof is 55 ft.; width of the transept, 22 ft., and length, 24 ft. The chancel is 28 ft. by 22 ft. wide; and the organ-chamber is 19 ft. by 12 ft., to which is added the vestry and an ante-room. The chancel and organ-chamber are paved with encaustic tiles, the other parts with plain reds. The church is lighted by coronæ from the caps of the columns. The font has been carved by Mr. Sheppard, of Bristol, and the pulpit by Mr. F. Bell, of Bristol. The heating (hot water) is by Mr. Wagstaff, of Ashton-under-Lyne. There is also a peal of eight bells being now cast by Messrs. Llewellin & James, of Bristol, which will be placed in the tower. The whole of the seating has been executed in pitch-pine. The stone used throughout is Yorkshire parpoints, with Box-ground dressings.

The general contractors are Messrs. Stephens & Bastow, of Bristol. Mr. W. Young is clerk of the works.

CHURCH DECORATION.

ALL SAINTS' CHURCH, BLACKHEATH.

THE internal walls of the chancel of this church, built about 1856, have been recently decorated, the principal portion of the work at present being at the east end. The five-light traceried window has had its mullions and jambs moulded, instead of the plain internal splay; and Devonshire marble shafts and carved caps, carrying appropriate mouldings and label, have been added.

A design of Caen stone, consisting at present of five panels (eventually to be enlarged to seven panels), extends under the window, being flanked by the shafts just mentioned, which serve to connect the window with the architectural features under it, as they run down to the floor-line. The idea (suggested by the Vicar) has been to do away with the ordinary reredos or screen, and to make the whole east wall a reredos, so to speak, over the table; in the central panel is a vesica moulded, containing a floriated cross of oak covered with copper gilt-plates, modified from an old example, with a background of dark marble. The panels on each side (divided by piers with delicate balls of spar in their hollow mouldings) contain subjects in sculpture. The dado is of hand-painted enamelled tiles specially made, and this is carried round the side walls of the sanctuary, though not quite so rich. The whole of the east wall above and at the sides of the window is lined with cream-coloured tiles as a ground, sometimes diapered, and with a rich frieze of flowing pattern at the springing line of arch; this same frieze is also carried round the side of the chancel under the cornice. The text, "Holy, Holy, Holy, Lord God of Sabaoth," is inscribed (likewise in tiles) round the window label with borders. The work just mentioned is only a part of a design prepared for the decoration of the whole chancel, which will probably shortly be carried out.

The sculpture and ornamental stonework have been executed by Mr. Thomas Earp; the art-tiles by Messrs. W. B. Simpson & Sons; the cross is by Messrs. Barkenton & Krall, of Regent-street. Mr. Ferrey, F.S.A., the original architect of the church, has supplied the designs and superintended the work.

GRANITE BUILDINGS.

SIR,—I have read in your issue of the 16th ult. "An Architect's" advocacy of the use of granite in buildings, wherein he does me the favour to name my recommendation of the frequent washing or cleansing of polished granites. He further states that anyone can decide the question for himself as to whether the normal rainfall does or does not keep stone and granite clean, by taking a ten minutes' walk round and about the Royal Exchange. I agree with him that a ten minutes' walk is sufficiently extensive to decide the question as to the absolute necessity of the washing and cleansing process which I recommend.

Permit me, for the guidance of those who may be inclined to take the said walk, to mention some buildings where polished granite has been used, and which would look all the better if cleansed by the water-brush or sponge referred to.

See the polished base and pedestal of Peabody's statue, close to the Royal Exchange; the Cairngall granite in the North British Insurance Office, Threadneedle-street, the rich colour of which would have been much better preserved had it occasionally been cleansed.

Speaking of the North British Office, the bases, consoles, plinth, &c., are executed in Darley Dale, a fine-grained sandstone, which, as to cleanliness, favourably contrasts with the granite bases and plinths of the Royal Exchange and those of the Sun Fire Office, corner of Bartholomew-lane, and Aliance Fire Office in the same lane.

The red polished granite columns of Palmerston Buildings, in Bishopsgate and old Broad-street, are so begrimed by soot that one can scarcely say whether they are polished or otherwise. Not so the red Peterhead granite at the "Scottish Widows" Offices, Cornhill, which stands out prominent and beautiful.

The fine delicate Kemnay grey granite in the polished doorway and columns of 109, Leadenhall-street, is so disfigured by soot accumulation that the class of granite is scarcely traceable. The same remark applies to the polished grey granite in the entrance to the Langbourne Chambers, Fenchurch-street, and the building adjoining; also to the Kemnay grey granite used in 31, 32, and 38, Lombard-street improvements; to the blue-polished granite in the Anglo-American Telegraph Company's Offices and M'Lean's Telegraph Office in Throgmorton-street.

Many other instances might be named, but I think the above will more than suffice to settle the question.

If a pedestrian, after examining the above granites, will pay a visit either to Abney Park, Highgate, or Kensal-green Cemetery, where the monuments are well taken care of, he will find granites of all colours and classes beautifully clean, and the colours well defined, viz.:—

Greys.—Kemnay Aberdeen, Dalbeattie, Cheesewring, Carnsew, and others.

Blues.—Cairngall, Dyce, Rubislaw.

Reds.—Peterhead, Trowlsworthy, Kinsteary, Clinterty, &c.

No doubt he will say, what a pity the granites in the City are not like these. It is a well-known fact that soot and dirt do speedily eat out the colour of granites or other stones. I therefore remark that if "An Architect's" recommendation of using coloured polished granites for the façades of buildings in London be extensively adopted, the colours will be utterly spoiled by soot absorption, unless periodically cleansed.

I trust "An Architect," in recommending granite as a building material for the City of London, does not depend upon it structurally, as in case of fire it is one of the worst building materials possible; moreover, he will find that notwithstanding all the new and improved appliances, cost is no insignificant item; and also that unless granite is polished (which brings out its beautiful colour) it is not the best and cleanest stone to use in London, as the pedestrian above-named will readily satisfy himself if he looks at the axed granite in the buildings already mentioned, and more particularly at the axed granites in the following buildings, viz.:—the old General Post-office, the base and pedestal of Peel's monument, the Atlas Fire Office, the red granite in offices, 31, Throgmorton-street, the Drapers' Hall, the plinth and sub-base of the Royal Insurance Company's offices, Lombard-street, which latter, although built with red Clinterty granite, I am satisfied neither our pedestrian nor other expert can now tell what granite it is.

The doorway to the Royal Insurance Offices, Lombard-street, is red polished Peterhead granite, with the incised work which "An Architect" so highly approves; but if he will pardon me, I beg to say that this incised work can be done far cheaper by the manual labour of skilled workmen than by the sand-blast he refers to. I may add, in conclusion, my clients would be glad periodically to clean their moulded and carved stonework, if "An Architect" or his clients will give them an order to do so; and when stonework is fairly cleaned down, either on first being fixed, or years afterwards (as may be seen in the case of the Fishmongers' Hall, London Bridge, and the Church of St. Peter-le-Poer, in Old Broad-street, lately cleaned down). "A Pedestrian," I think, will say it favourably contrasts with other methods of cleaning, whether of washing granite, or by using the painter's brush on the various kinds of artificial stone in use, the latter requiring to be done again and again, year by year.

I have frequently said that façades in Portland cement, mastic, ornamental wood, and iron-work, although scraped and painted periodically, do not long look better than other façades executed in polished granites, Portland, and fine sandstones, which are generally left to be cleaned by the occasional showers of rain. I could recommend a cleaner and cheaper building stone than granite, but I forbear, and wait the report of "A Pedestrian."

SAMUEL TRICKETT.

FALL OF HOUSES.

Rotherham.—Early on the 4th inst. a two-storied building, 33 ft. by 21 ft., behind the Co-operative Stores, Effingham-street, and belonging to Mr. Woodhouse, joiner, fell with a crash, and scarcely any portion of the building remained standing. The ground-floor was used as a ginger-beer manufactory, and the upper story was used as a joiner's shop. Fortunately no one was injured. About ten o'clock the same morning a similar accident occurred in Tusmore-street, in the same locality. In the street two houses are being erected by Messrs. Hardstaff & Temple, and the walls had been carried up to the chamber floor. A scaffold had been fixed to the inner walls, and whilst Walter White, a joiner, was walking on it, to borrow a level from one of the other workmen, the walls fell in, and he was buried in the ruins. Mr. Hardstaff at once went to the rescue, and had taken off him a number of bricks, when a second fall took place, and White was again buried. In a short time, however, he was got out and taken to the Infirmary.

Salford.—On the 11th inst. a fatal accident occurred in Liverpool-street, Oldfield-road, Salford, by the falling-in of a house and shop in course of erection and nearly completed. Three workmen were employed in the building at the time, and two of them escaped injury, but the third, a bricklayer's labourer, named William Rooney, was buried beneath the *débris*, and when extricated was found to be dead. The building was one of four small shops which were being completed for Mr. James Greenhalgh, of West Egerton-street, the contractor for the brickwork being Mr. John Mills, of Lower Broughton. The doorway of the shop, which, for the size of the premises, was a large one, was at the angle of the premises, and consequently, the upper stories at the corner had no support directly from the ground, but simply by projecting joists, or beams, from the main body of the building. Within a few yards of the doorway, in West Charles-street, was an opening in the side-wall, through which to convey goods into the cellar. This opening, and the overhanging corner, detracted somewhat from the strength of the gable; but another, and what is thought to be a more important cause of the downfall, was to be found in the cellar itself. Here there was a trap, just beneath the shop doorway; and the water is said to have been allowed to run into a hole, the width of which was about 5 ft. by 4 ft., and which had been excavated out of the cellar-floor. In this pit lime was slacked, after which it was heaped upon the opposite side of the cellar. It is presumed, by some, that the water got into the foundations, and so undermined them. The inquest on the body of the deceased has been postponed in order that Mr. Littlewood, architect, Manchester, might make an inspection of the building, and report to the jury at the adjourned inquiry.

BRADFORD WATERWORKS ENGINEER'S SALARY.

AT a meeting of the Bradford Town Council, on the 9th inst., Alderman Brayshaw moved,—"That in accordance with the recommendation of the Waterworks Committee, the salary of Mr. A. R. Binnie, waterworks engineer, be advanced to 1,000*l.* per annum, from the 1st inst." This having been seconded, Alderman West moved an amendment to the effect that an arrangement be made with Mr. Binnie by which the latter bound himself to serve the Corporation for six years, from the 1st of January inst., and that his salary till the end of 1879 be 800*l.* a year, from that time to the end of 1881, 1,000*l.* a year, and from that time to the end of 1883 1,200*l.* a year; and that the Corporation be at liberty to put an end to the service by a month's notice or the payment of a month's salary, and should not be required to give any reason. This was seconded, and on being put was carried by 39 votes to 4, and became the substantive motion, to which a further amendment was moved, that the salary be fixed at 800*l.* This was lost, and Alderman West's motion was carried almost unanimously. The *Bradford Observer* states that the Corporation have determined to carry out vast works extending over the next five or six years at the very least, and involving the expenditure of perhaps half a million of money. Mr. Binnie's salary up to the present time has been 400*l.* per annum, and great opposition was raised by a section of the ratepayers to so large an augmentation of salary; but the *Observer* remarks "that time will show that their true interests have been better served than they would have been by the giving way of the Council to popular feeling in spite of its better judgment."

A SUB-CONTRACTOR'S CLAIM.

RICHMOND *v.* MERRITT AND ASHBY.

THIS was an action (heard in the Brompton County Court, on the 9th inst., before Mr. Serjt. Wheeler, judge), entered by a sub-contractor, to recover the sum of 10*l.* 16*s.*, for plumbing work done at the Notting-dale Police-station. The sum of 26*l.* had been paid on account of the said work.

The plaintiff said he had done the work he had agreed to do, and he was then required by the foreman to do it over again, as it was condemned by him chiefly on account of the lead being light.

The claim was disputed by defendant on the ground of the charge being excessive, and according to plaintiff various sums of money had been offered to him in settlement of the claim. The first work occupied forty hours, the time of the workmen being charged 6*d.* per hour, and his own at 10*d.* This did not include the extra work done. The difference between the parties after the payment of money into court was not now as above stated, as the money had been paid into court since this action had been brought.

At the suggestion of the judge, the parties here left the court to compare the specifications, and endeavour to settle the case, but they were unable to do so, and the case was resumed.

After further evidence as to the overcharges on the part of plaintiff, the judge pointed out to plaintiff that he had charged twice over for work that had been included in the original estimate for 26*l.*, which amount had been paid. He should give a verdict for the defendants.

DISPUTE WITH WATERWORKS CONTRACTORS.

Tadman v. *Normanton Local Board.*—Mr. Tadman, of Wakefield, the contractor for the construction of a reservoir for the town of Normanton, in consequence of a dispute, commenced an action against the Local Board for the recovery of over 1,000*l.*, which he alleges is due to him for works executed. An order having been made at Judges' Chambers that the question in dispute shall be referred to arbitration, Mr. E. Pritchard, C.E., of Warwick, has been selected by both sides to act as arbitrator between the parties.

A Fountain for Liverpool.—The ex-mayor of Liverpool, Colonel Steble, has offered to present to the town a fountain of the value of 1,000*l.*, to be placed on the open plat opposite the new Art Gallery and the Picton Reading-room.

AN ARCHITECT'S DISPUTED CLAIM.

AT the Bloomsbury County Court on the 12th inst., the case of Strange *v.* Hogathorn was heard, before Mr. Russell, judge, in which the plaintiff, described as an architect and surveyor, of Gloucester-road, Regent's Park, sued the defendant, described as a cattle salesman, to recover the sum of 26*l.*, being the balance of an account stated.

Mr. Charles Williams, solicitor, appeared for the plaintiff, and Mr. Foote for the defendant.

Mr. Williams, in opening the case, said that in the month of July last his client was introduced to the defendant by the clerk of the works to the Metropolitan Cattle Market, with a view to building a cattle repository in the Roman-road, the original approximate cost of which was to have been about 1,000*l.*; after several modifications, however, the specification amounted to 750*l.* The plaintiff had spent considerable time and trouble in seeing the ground landlord and obtaining his consent, as well as the approval of the vestry and the Metropolitan Board of Works, each of which the plaintiff had secured by the direction of the defendant, who had paid the plaintiff 20*l.* on account of his claim, and now denied further liability, as the works had not been carried out, and hence the present action to recover the balance now sued for.

The plaintiff being called corroborated Mr. Williams's opening, adding that when Mr. Johnston, the builder's, tender was obtained, the defendant changed his mind, and the work was not proceeded with, although he (the plaintiff) had superintended, by the defendant's order, the purchase of timber and building materials for the purpose, which were deposited on the spot by permission of the ground landlord.

In cross-examination, the plaintiff said he did not know the reason why the defendant refused to sign the contract. It was not because his charges were unreasonable. The defendant's solicitor had asked him to refer the matter to the arbitration of two competent surveyors; but he had declined doing so, and preferred to bring his action in this court. He considered his bill of particulars both moderate and correct.

After a lengthy cross-examination, and re-examination by Mr. Williams of the plaintiff, the Judge said it was a pity that the plaintiff had not, in the first instance, submitted to refer his case to arbitration, as it was one which the law empowered him (the Judge) to refer, which he should certainly do.

Mr. Williams here mentioned that there were two gentlemen, who were surveyors, at present in court, who were watching the case, and who would perhaps consent to act in the matter.

Accordingly, Mr. T. H. Maples, on the one side, and Mr. Brunsden, on the other, retired into the Registrar's private room. On going through the particulars of the case, they communicated their result to the Judge, who ruled in favour of the plaintiff for 13*l.*

Mr. Williams asked that as the action was for 26*l.*, he might be allowed the higher scale of costs over 20*l.*, to which the Judge assented.

HOLIDAYS FOR WORKMEN.

EMPLOYERS of working-men in the North of England, finding their hands overjoying themselves on festive occasions, have submitted the following paper on the subject:—

It must often occur to any one acquainted with the ways of life, and the habits of the average working man in these parts, to ask how he can manage to take such long holidays, and apparently to enjoy them, in the not altogether inexpensive manner common to him?

At Christmas and at Easter works are "laid off" for many days, and, in a smaller degree, the same thing happens when there are local shows, festivals, and celebrations. The average business man takes his day or two at Christmas or at Easter, and he spares a few hours at other times for recreation. But he does not altogether throw off the harness, and if the works are idle he is not. If he takes a fortnight or a month in the year for pleasure, he does it with an object—a set purpose. He does not "idle" simply because other men idle. Were he to do so, there would be an end of his business. Indeed, he cannot afford it. How, then, do the wages or day-paid classes afford these long spells of laziness? Who suffers? Do they like it themselves? Is it the tyranny of the few over the many? Nothing is more absurd than to see a strong stalwart artisan or labourer wasting his time about street corners, or in public-houses, and calling those lost days holidays.

The men have issued a rejoinder, "All work and no play makes Jack a dull boy."

THE WORKS OF LOCAL CELEBRITIES.

SIR,—Professor Donaldson's remarks in the *Builder* of Saturday, under this heading, on the value of local collections of works of art, will be read with interest by many of your readers in the provinces.

He asks what *Devon* has done for the marked names in English art, science, and literature connected with that county? The reply is,—Scarcely anything.

In or near this town were born Reynolds, Northcote, Haydon, Eastlake, Prout, and other painters of European fame; yet, beyond a solitary bust and one or two portraits, a visitor sees nothing in our public buildings to remind him of the great artistic associations of the locality. It would not be so, as your correspondent intimates, in the towns of France or Italy. Yet where there has been so much neglect in the past, the difficulties in the way of forming permanent local collections, it must be confessed, are very great. The works of past celebrities are, with rare exceptions, now unobtainable, and are of almost priceless value.

Complete sets, however, of the finest engravings or autotypes of the works of deceased painters are procurable, so also are representative works of living painters; and these, with such models of sculptors' works as Mrs. Lough has generously given to the municipality of Newcastle, might form the nucleus of an interesting and valuable local gallery. It is intended next year, on the occasion of the visit of the British Association to this town, to hold an exhibition of the works of artists, past and present, of Devon and Cornwall, and it is expected that, through the kindness of owners of pictures, a large and comprehensive collection of almost unique interest will be obtained.

It is possible that this temporary exhibition may lead to the establishment of a permanent gallery in a town which has been not inaptly called "The nursery of English painters."

Plymouth. J. H.

PLAN OF DRAINS.

SIR,—I would suggest, with a view to the partial protection of persons taking the lease of a house, that it should be made compulsory on the landlord to attach to the lease a certified plan, showing the nature and direction of the drains. The tenant would by this means be saved much of the expense and inconvenience experienced at present, when, suspecting something wrong in his drains, he has to rip up half the flooring of his basement to find them, simply because the workmen have no guide by which they can be traced from the outside.

M. G.

ACCIDENTS.

DURING the gale on the night of the 6th inst., the iron pin upon which the vane revolved at the summit of the south-west tower of Lichfield Cathedral was broken, and the vane now reclines over the top of the spire at a dangerous angle. Half a century since the previous vane of the same spire was blown down, falling with immense force close to the sun-dial, and embedding itself to a considerable depth in the ground. The accident at that time necessitated a recapping of the spire.

Dr. Hardwicke, the coroner for Central Middlesex, has received information of a shocking accident which happened to Mr. Alfred George Snewen, timber merchant, of the timber yard, Backhill, Hatton Garden. It appears that the deceased was superintending the removal of a stack of timber, when it fell and buried him. When he was extricated he was seen by Dr. Milburn, of 139, St. John-street, Clerkenwell, who pronounced life to be extinct.

A sad accident happened on Saturday last, the 13th inst., at St. Mary's Church, St. James's-street, Brighton, now in course of demolition prior to re-erection. The roof having been removed, two labourers, named Watts and Murphy, were engaged in pulling down one of the cross-beams which formerly supported it, when the beam suddenly parted in the middle, where it was joined with iron clamps, precipitating both men to the floor of the building. Watts, who was working on the top of the beam, fell a distance of between 50 ft. and 60 ft., smashing his jaw, fracturing several of his ribs, and sustaining other such severe injuries that his life is despaired of. The other man, who was standing in the gallery, fell a less distance, but was also very seriously injured. They were both conveyed to the hospital. This is the second casualty that has happened at the church. A few months since, when a portion of the chancel had been removed preparatory to extending the edifice, the whole of the northern end of the building collapsed, six men narrowly escaping with their lives. The building was so shaken that it was rendered obligatory to demolish it altogether.

On the 3rd inst., about noon, the tower of the parish church of Bozeat, Northamptonshire, suddenly gave way in the manner hereafter described. Mr. R. H. Carpenter, of London, was at once consulted by the Vicar. Mr. Carpenter reports that about 300 ft. cube of stonework had fallen from the east wall, including the external arches of the belfry window, the facing and ornamental cornice above it, besides the whole of the jambs and sill of the spire light to within a few inches of the springing of its tracery, and a considerable portion of the face of the spire and its broaches, leaving exposed the rough rubble-work of the inner wall; the nave roof is also much injured. "The mass of masonry which has fallen was pointed out by Mr. Slater and myself in 1869, when we drew up our report and plans, as being in a particularly dangerous state, and the line of fracture has now followed the lines we then indicated on the plans. Unfortunately, not only the east side, but the whole of the tower, is in a most dangerous state, and has been and still is being crushed between its solid foundations and its heavy spire. The tower is of the Later Norman Period, when the style was changing into Early English, and we find the capitals of the belfry window-shafts carved in this Transitional style. Now, this Norman Period is not famous for its stability of building, and most of our cathedrals and churches have suffered from the collapse and ruin of these Norman towers; some fell within a few years of their erection, others stood till recent times, as at Chichester and Hereford. The cause of failure was alike in all—bad mortar and absence of mortar. Bozeat tower is no exception to this rule; its mortar is nothing but soft dirt, and where it is exposed to wet it becomes liquid mud. The stones of its walls are small rough rubble-work, thrown in anyhow, sometimes with and sometimes without mortar, and with no bond stones of any kind. . . . In my opinion the tower walls are in a very dangerous state, and, being now exposed on the east side, should rain or frost penetrate them, or a heavy western gale comes on, it is more than probable that further portions, if not the whole, would fall, and in such a direction as to destroy the church. I have, therefore, with your approval, communicated with Mr. Foster, of Kempston, a builder, who has done very satisfactory work under the late Mr. Slater and myself, and I have given him such instructions for securing the walls of the belfry stage, and the overhanging portions of the spire, as may, I trust, prevent further falls, and, when this is done, I will at once order him to very carefully take down the spire and the belfry stage, numbering and laying out on the ground the several stones, so that they may be re-erected as now. The work will be commenced forthwith, and I have directed one of our experienced clerks of works to be on the spot and watch all that is done."

MASTERS AND MEN.

Lambeth.—Messrs. Doulton write, on the 12th inst.:—"We have this morning received a letter from the distinguished political economist, M. Michel Chevalier, of Paris, with reference to the strike ordered by the Council of the Operative Bricklayers' Society, at our buildings on the Albert Embankment, because we declined, at their dictation, to discharge two skilled terra-cotta fixers, on the ground that they were not bricklayers. The subject appears to have excited considerable attention, not only in this country, but also on the Continent, and in America, and we have frequent inquiries as to the result. In the letter just received, M. Michel Chevalier says, 'As an economical incident worthy of record, I take the liberty of asking you what has been the result of the contest; have you been forced to submit by the dismissal of the two terra-cotta men, or did the union give in to reason?' Will you, therefore, as a matter of public interest, permit us to state that the two terra-cotta fixers are retained in our employ; that the Council of the Bricklayers' Society continues the picketing (which is a scarcely disguised form of intimidation), and that the strike, now extending over fifteen weeks, is still kept up. We are, however, glad to say that our work is being carried forward by non-society men, notwithstanding the persistent obstruction of the union."

Willenhall.—At the last monthly meeting of the Wednesbury Trades Council, some discussion took place on the hiring system, which prevails in different Black Country trades, the matter being opened with a report from Mr. Harrison, as representing the deputation appointed at the previous meeting to confer with the Willenhall lockmakers on the subject. He said a very full report of the proceedings had been published, and from what took place at the meeting he was satisfied that there was no necessity for the hiring system, and that the masters were more to blame than the men for the continuance of the system. It was unanimously resolved, "That in the opinion of this Council the hiring system as practised at Willenhall and other places, is prejudicial to the interests of trade, an injustice to the workmen, very discreditable to the em-

ployers, and a disgrace to a civilised nation, and that the only effectual means for its suppression is the interposition of the Legislature, whereby such a practice shall be made criminal and punishable with imprisonment."

Durham.—The strike of Durham joiners still continues. One or two irregular meetings have taken place amongst the men, to ascertain if any of the masters had made any offer. At one of these meetings it was stated that Mr. Whaley, builder and contractor, had allowed his men to continue working at the usual rate of wages, and the men had consequently remained at their posts.

Dumbarton.—At a meeting of joiners held at Dumbarton, the following resolution was adopted:—

That whereas the system of piece-work, wherever it has been adopted, has been found to be injurious to the interests of the workmen, this meeting resolves to oppose its extension in Dumbarton; and, in order to carry out the foregoing resolution, the meeting pledges itself to use every endeavour to secure the enrolment of all non-Union workmen in the district as members of recognised Trade Unions.

Bromsgrove.—A meeting of the members of the Bromsgrove Nail-forgers' Protection Association was held on the 8th inst. to take into consideration the present state of the trade and its prospects generally. There were about 300 men present. It had been rumoured that the trade was in a very depressed condition, and that as orders were rapidly falling off, only partial employment would be obtained, and the question was raised whether it would be desirable to expend the funds of the Union. After a long discussion the meeting was of opinion that the trade was not in such a position as had been represented, and out of the whole number in the room only two were at the present time without employment. One thing, however, was certain: that a great many men were at work for less than the list-prices.

One-handed Bricklayers.—The rule of the British Bricklayers' Association, by which the bricklayer is made to do his work with one hand in his pocket, is, perhaps, as efficacious a means of degrading work as has yet been devised; but if we had the ear of the law-givers of the Union we should be inclined to suggest the advantage of a rule requiring that all bricklayers in good standing should have the left hand amputated. This would make it easy to distinguish everywhere at a glance, with very little danger of mistake, between a unionist and a non-unionist. It would cheapen trousers, by making the left-hand pocket unnecessary, and so leave more money for beer and tobacco; and it would be the strongest possible guarantee against forgetfulness of the cardinal rule. It would not interfere with anything the bricklayer might want to do, for one hand is enough to fill a pipe or lift a beer-mug. The loss of convenience in dressing and undressing would be a small matter; for, since this has to be done at home, the bricklayer's wife could be made to do it for him; and for disciplining a wife, one hand is probably almost as good as two; besides which, the cherished privilege of kicking and stamping on her would be left unimpaired. Moreover, the sacrifice, or, perhaps, we should say the riddance, of the left hand would have the serious advantage of unfitting its owner for military service, while the resource of turning a hand-organ would remain. —*American Architect.*

New Cattle Market and Abattoirs, Dundee.—On the 26th ult. the new cattle markets and slaughter-houses at Carolina Port, Dundee, were formally opened. The new markets were rendered necessary in consequence of the inadequate accommodation provided by the old Cattle Market, and in order to provide a dead-meat market and better and more convenient slaughter-houses. The new markets cover an area of about six acres, and have cost the Police Commissioners upwards of 40,000*l.*, the site costing 17,000*l.* in addition. Mr. Mackison, the burgh surveyor, prepared the plans. Ample provision has not only been made to meet the requirements of the different branches of the butcher trade, but special accommodation has been provided for horse-dealers, agricultural produce, &c. The markets occupy somewhat sloping ground to the north of the Caledonian Railway, and extend from the Ferry-road on the north to East Dock-street on the south. The upper half of the ground is occupied by the markets, and the lower half by the abattoirs, superintendent's house, and offices. The clerk of works was Mr. Dargie.

BATT'S APPLIANCES FOR SCAFFOLDING.

BATT'S appliances, which are manufactured by Mr. Alexander Moffatt, consist of iron shoes connected by a ring, to receive the horizontal timber in whole-timber scaffoldings. Besides a saving in labour, which is obvious, the patentee claims that additional strength is obtained. For buildings at a distance from the contractors' yards, a great saving in the carriage of poles to and fro is effected, as the irons occupy but small space. Timber of any convenient size,—viz., half an 11 in. plank, or quartering,—may be used for the standards and ordinary deals and battens for ledgers. At Lett's Wharf scaffold, which is 130 ft. high, the standards are formed of three 9 in. by 3 in. deals, breaking joint every 7 ft., thus giving a 9-in. square standard. These standards are 20 ft. apart, and the ledgers are 9 in. by 3 in. deals, 20 ft. long.

CHURCH-BUILDING NEWS.

Helmdon.—The parish church of Helmdon, Northamptonshire, has been re-opened, after restoration. The church is dedicated to St. Mary Magdalene. The architects for the restoration say that the greater part of the edifice is in the Decorated style, but the tower was re-built in the year 1823, and is of the most debased character. It was substantially done, but the belfry windows had no tracery, and no arch was constructed connecting the tower with the nave. The south porch was re-built in 1841, and the north porch in 1860; both of these also in the debased character of the period. The chancel roof was erected in the year 1872, and was very badly constructed. Unfortunately the funds at the disposal of the architects did not permit of the re-construction of the porches or of the chancel roof, but they have introduced simple tracery in the belfry windows, and a well-proportioned, bold arch in the tower at the west end of the nave. The whole of the church has been re-seated, new choir-stalls and prayer-desks provided for the chancel, and a new pulpit in the nave. The roofs have been restored, the old lath and plaster ceiling having been removed, and yellow deal boarding in narrow widths placed on the under side of the old boarding, and fixed diagonally between the rafters. An unsightly gallery has been removed from the west end of the church, and that, with the new arch in the tower, is a great improvement in the internal appearance of the church. A new organ-chamber has been erected on the north side of the chancel in the Decorated style. To the exterior some repairs have been done, in addition to the new work of lengthening the north aisle. The works have been carried out from designs, and under the superintendence of Messrs. E. F. Law & Sons, architects, Northampton, and executed by Mr. Young, builder, of Lincoln. The total cost will be about 1,550*l.*

West Bromwich.—Christ Church, West Bromwich, was re-opened on the 28th ult. by the Bishop of Lichfield. For some years past the edifice had been in a tumble-down condition, notwithstanding the constant outlay of money in small repairs, and about nine months ago the congregation resolved that it should undergo a thorough renovation. The roof has been newly slated, new lead gutters have been introduced, and all faulty places in the walls have been put right. With regard to the inside of the church, the seats have been re-arranged, the old oak pews being lowered and provided with new ends. New floors have likewise been constructed. The most extensive improvement is the alteration at the east end. Formerly there was only a very small chancel; that part of the building has been extended by the addition of one bay of the nave and aisles, leaving the gallery above as hitherto. The church has been decorated in a simple manner, the ceilings being of a turquoise blue, and the ribs of the groining white. The chancel decoration is similar, with the addition of gold stars. The walls are of a warm buff, with an enriched dado where not occupied by oak framings. The total outlay, including a new organ, has been nearly 3,000*l.*, a large proportion of which sum remains to be paid. The entire work of renovation has been carried out, from designs by Mr. Yeoville Thomason, of Birmingham, by Messrs. Holland, builders, Dudley; the decorations being by Messrs. Taylor & Parker, of Birmingham.

Huntingdon.—The parish church of St. Mary's, Huntingdon, has been re-opened, after restoration. Six or seven years ago some 800*l.* or 1,000*l.* were expended on the building, but the works carried out during the past three months have been of a more extensive character. One of the most important works in the present restoration is the roofing to the north and south aisles. The old wood roof of the north aisle partly covered and obscured the clearstory windows; in fact, in removing the old roof it was discovered that a second or subsidiary roof had been placed on the original, and this extended above the sills of the windows and partially obscured the light. These new roofs are of Early English style. They are stained deal, flat boarded, with oak truss principals, and leaded. The chancel roof, which is the gift of the Earl of Sandwich, is wholly of oak. The design is pointed, with wagon-headed principals. The four windows in the clearstory on the north side are entirely new. The ancient inscriptions on some of the pillars have been retained, notably that on one of the north columns,—"Cromwell Turpin Bailiffs, 1600." It was found impossible to raise the row of pillars on the south side to the Perpendicular, so they remain as they have been for a considerable period of time. The window in the tower has been restored. The flooring of the church is entirely new, the passages of nave and aisles being of metallic tiles (red and black) manufactured by Messrs. Peake & Co. The high-backed pews have been replaced by new oak open benches. The stone buttresses of the south and north sides of the exterior have been restored. A new stone pulpit has been erected, at the expense of the Earl of Sandwich. This has been supplied by Mr. William Wade, of St. Neots, and the carving was executed by Mr. H. Bates, of Stevenage. The glazing of the windows has been executed by Messrs. Page & Measures, Huntingdon. The general contractor was Mr. G. M. Bates, of Stevenage. The stonework was sub-contracted for by Mr. W. Wade, St. Neots. The architect was Mr. A. W. Blomfield. The contractor's foreman was Mr. H. Edgcombe.

SCHOOL BOARD SCHOOLS.

Langport.—New Board Schools, in North-street, Langport, Somerset, were opened on the 1st inst. The schools are built of local stone, with Ham stone dressings, and fitted with stained deal. Mr. Hall, of London, is the architect; and Mr. Davis, of Langport, the builder. The cost amounts to about 2,600*l.*

Newton-Stewart.—The new school erected by the School Board of Penninghame, in place of the one in Princes-street, was opened on the 2nd inst. Besides the school-house there is a dwelling-house for the principal teacher, with garden, &c. The buildings have been erected at a cost of 2,200*l.*, from plans by Mr. R. Park, and will accommodate 135 pupils.

Moseley Village.—New Board Schools at Moseley Village were opened on the 1st inst. Mr. Griffin, architect, Wolverhampton, was instructed by the Board to prepare the plans, and on their approval by the Education Department, tenders were advertised for, and the contract let to Messrs. Cookerill, of Wolverhampton, on the 3rd of April, 1876. The schools have been completed at a cost (including land, half an acre, architect's commission, &c.) of about 1,800*l.*, and will accommodate 250 children. This shows the cost to have been 7*l.* 2*s.* 6*d.* per head.

Widnes.—The first of three capacious schools, which are to be provided to meet the educational requirements of Widnes, was opened on the 8th inst. The school in question is situated in Warrington-road. The architects for the new building were Messrs. F. & G. Holmes.

Obituary.—On the 9th inst., Mr. T. Page, C.E., died at Paris, suddenly, in his 74th year.——On the 10th inst., Mr. J. F. Beattie, a well-known land surveyor at Aberdeen, died suddenly, while engaged in surveying at Ecclesgreig, near Montrose. Mr. Beattie, who was a native of Aberdeen, was in his seventy-fourth year. His more important works were the laying out of Balmoral Castle and grounds, the construction of the principal turnpikes around Aberdeen, and the surveying and valuing for the Scottish North-Eastern Railway and the Great North of Scotland and Deeside Railways.——On the 11th inst., Mr. Alfred Smee, F.R.S., died at his residence, Finsbury-circus, aged fifty-eight. He was well known as surgeon to the Bank of England, and was a man of very varied scientific attainments.

Books Received.

A Few Notes on the Portable Steam Engine. By JOHN HEAD, C.E. E. & F. N. Spon, London. MR. HEAD, in these notes on the "Portable Steam Engine," has given a more detailed and scientific account of the construction of this useful class of engine than has hitherto been attempted in trade catalogues; and in the last part he has furnished a description of a new engine for burning straw and other vegetable refuse, besides wood and coal, and which has already been successfully employed in various parts of the world. This engine enables steam power to be used in *every district where a crop can be grown*, which has hitherto been impossible, owing to the great distance, in many cases, over which it was necessary to transport wood and coal,—the only fuel which steam-boilers have, until recently, been constructed to burn. As the amount of heating surface for burning vegetable substances is about the same as that necessary for consuming saw-dust, small chips, and for refuse from the manufacture of wood, these patent engines are eminently adapted for all contractor's work. The portable steam-engine will be more and more extensively used as its advantages become more widely known.

VARIORUM.

"THE Paper-Hanger, Painter, Grainer, and Decorator's Assistant, by a Decorator" (Kent & Co.), gives instruction in methods, tables for paperhangers, and many "recipes," while it does not omit to speak of "the principles of harmony, contrast, and philosophy of colour." It is not addressed to the advanced student of these principles, but to workmen, and by them will be found very useful.——The *Gardener's Chronicle*, speaking of the Cedar of Lebanon, says,—"In England this type of indestructibility produces only second-rate timber. In Palestine documents of particular value were kept in cedar boxes by preference, and there was a common saying in reference to articles of value that they were worthy to be cased in cedar. Not only was the wood extremely durable, but it was of rapid growth, and in Hebrew families it was not uncommon for the parents of a child to plant a Cedar of Lebanon at his birth, to be cut down for the construction of a bedstead at his marriage. In England, where colliers marry at eighteen, and farm labourers at twenty, and the middle-class at twenty-five, there are no trees of strength and toughness which would in like manner overtake the wedding-day, so as to be adapted to the purpose above suggested.——The same *Chronicle* has issued an appropriately illustrated sheet almanac.——Sir Joseph Causton & Sons also have issued a sheet almanack, but this is printed in colours.——

Miscellanea.

Municipal Art Galleries and Museums. A conference of representatives of corporations and towns, possessing art galleries and museums, has been held at Birmingham, for the purpose of considering measures for bringing before the Commissioners for the Exhibition of 1851 the claims of provincial towns to participate in the funds at their disposal, and also urging upon the Government the desirability of granting loans from the British Museum and other national collections. Representatives were present from Liverpool, Manchester, Leeds, Sheffield, Salford, Bradford, Swansea, Newcastle-on-Tyne, and other large towns. A resolution was carried affirming that arrangements should be made for the loan of examples from the national galleries and museums for exhibition in museums established by municipal corporations; and that it was desirable to urge upon the Royal Commissioners for the Exhibition of 1851 the propriety of realising the property under their control, and applying it in part in aid of building museums in connexion with municipal corporations, and in providing for the purchase of objects suitable for exhibition. It was also decided to hold an adjourned meeting in London. A resolution was submitted, to the effect that provincial towns are entitled to a direct share in the national grants for the promotion of science and art, and that such grants should be made in aid of the provision of buildings, and for the acquisition and collection of objects suitable for exhibition.

The Portico of St. Martin's-in-the-Fields.—At a meeting of the vestry of St. Martin's-in-the-Fields, on the 11th inst., the Rev. W. G. Humphry, vicar, in the chair, the amended plan of the Metropolitan Board of Works for dealing with the parish church portico in connexion with the proposed new street from Charing-cross to Tottenham-court-road, was brought forward. The Chairman said that he had had an opportunity of submitting the plan to Mr. Butterfield and Sir Gilbert Scott, both parishioners, and they agreed that it was highly objectionable to have, as it showed, a number of columns set upon pedestals of unequal heights. He had given the subject some subsequent consideration, and had come to the conclusion that the plan was as objectionable as the first one which provided for the walling up of the portico. Mr. Lancaster thought that, as part of the National Gallery was about to be taken down, a little more might be taken for the purposes of the proposed improvement. Mr. Churchwarden Scott moved that "this vestry altogether objects to the plan proposed by the Metropolitan Board of Works, and that measures be adopted to oppose the same." Mr. Churchwarden Eames seconded the motion. Mr. Glazier explained the course already pursued by the vestry, and said they had submitted to the Board of Works a plan that had received the approval of Mr. Fergusson. Mr. Hill said, as the Metropolitan Board seemed to have adopted a course of "no surrender," the vestry should take up the same ground. The motion was then put and carried.

English Costumes and Armour.—A lecture on this subject was delivered by Mr. J. Roddis, on the 10th inst., to the members of the Birmingham Guild of Art. The lecturer, commencing with the very earliest period, proceeded to trace the history of the costumes and armour which had at different periods been in vogue in this country. He glanced at the singular manner in which extraordinary changes of fashion have by degrees come about, how costume had altered as the requirements of society demanded, or the peculiar taste of individual leaders directed, and graphically described the peculiarities and the occasional extravagance which were at different times exhibited. In alluding to the period of which the Tennysonian "Idylls" treat, he remarked that one of the most beautiful editions of these works was embellished by designs which clothed the characters portrayed in the garments of the Middle Ages. Dr. Sebastian Evans, in proposing a vote of thanks to the lecturer, took exception to his objections to the illustrations to the Arthurian poems of our Laureate. The period treated of was to a certain extent mythical, and it was not inappropriate to clothe fictitious personages in garments of the times in which the legends with which these names are connected were current.

An Honourable Testimonial.—At a recent meeting of the Council of Foreign Bondholders, the Hon. E. Ploydell Bouverie in the chair, it was moved by Sir John Lubbock, Bart., M.P., and seconded by Sir Francis Lycett, Kt., and unanimously resolved:—

"That this Council highly appreciate the services and exertions of Mr. Francis Bennoch, F.S.A., during the period he discharged the duties of their Chairman in the years 1874-5-6; and wish to mark their sense of the value of those services and exertions to the Corporation of Foreign Bondholders by appropriating 500*l.* as a testimonial to Mr. Bennoch, of which they would request his acceptance."

In communicating this to Mr. Bennoch, Mr. Bouverie inquired in what way it would be most acceptable to Mr. and Mrs. Bennoch that the testimonial should be handed to him. Mr. Bennoch subsequently wrote that inasmuch as his services were to be considered as entirely gratuitous, and after consulting with Mrs. Bennoch, they had decided that about one-half the amount voted should be expended in silver, and the other half devoted to educational or charitable purposes. The plate chosen is a handsome silver tea-tray, fittingly inscribed; an epergne on a plateau of plate-glass and silver; a pair of five-light candelabra; and a rose-water dish and ewer of very interesting design.

New Reading Room, South Kensington Museum.—After several years' experience as to the insufficiency of accommodation for the readers at the Art Library, South Kensington, of whom last year there were upwards of 24,000, there is now about to be built a fitting reading-room for their use. The old entrance to the Museum, with the group of "shanties" adjoining, is being pulled down to give a suitable site for a new library.

The Artisans' Dwellings Act.—A deputation from the City Commissioners of Sewers had an interview with the Home Secretary on Tuesday respecting the mode in which they proposed to carry out the provisions of the Artisans' Dwellings Act in the City. Mr. F. Cox, chairman of the Commissioners, laid before Mr. Cross proposals for bringing under the Act three different areas. The first proposal had reference to Fetter-lane, which would deal with houses accommodating 260 persons at a cost of 32,000*l.* The second referred to St. Luke's district, and would remove houses that accommodated 1,230 persons, at a cost of 90,000*l.* The third scheme would deal with property in the district of Whitechapel, removing houses that accommodated 1,150 persons, the cost of which was estimated at 162,000*l.* These three areas would entail an ultimate cost to the City of 284,000*l.* Mr. Cross expressed his satisfaction at the manner in which the Act was being adopted in London and throughout the country, and said he believed that in a few years there would hardly be a plague-spot remaining. Authorities must move a little faster than they have yet, if that is to be the case.

Goodwill to Employers.—The workmen in the employ of Mr. R. C. Allen, builder, of Ware, being desirous of showing their genuine good feeling, presented him with a handsome clock, with the following inscription upon it:—"Presented to Mr. R. C. Allen, by the workmen in his employ, as a token of their respect and regard. Ware, December 30th, 1876." We are able to say positively that its tendency to strike did not influence them in the selection.——More good feeling between employer and employed was shown on the evening of New Year's Day, when about sixty of the *employés* of Mr. Wellspring, of Dorchester, met to do honour to their master on the occasion of his marriage. The company were entertained at supper in the carpenters' shop on the premises, West Fordington, Mr. Wellspring presiding. On this occasion, also, an inscribed timepiece was the present.

New Bank at Wakefield.—New premises for the Wakefield and Barnsley Union Banking Company are about to be erected on a site now being cleared, at the top of Westgate, Wakefield, adjoining the Bull Hotel. The new building will have a frontage of 72 ft. towards Westgate, and will be 60 ft. in height from the pavement to the top of the parapet. The façade will be in the Italian style, carried out in ashlar from the Warwick Quarries, near Huddersfield. The cost, exclusive of site, will be 11,000*l.*, and the works will be carried out by Messrs. John Ives & Son, Shipley, from plans prepared by Messrs. Lookwood & Mawson, of Bradford, Mr. J. Johnstone being clerk of the works.

Convict Labour in Building.—The *Daily News* says that the unusual spectacle of convicts being employed in the midst of troops, on barrack work, may now be witnessed at the Royal Engineer Barracks, Brompton, where a number of convicts, under care of a strong convict guard of warders, all armed, are engaged in the erection of a commodious mess-room for the non-commissioned officers of the Royal Engineers. The building is being erected from the designs prepared at the School of Military Engineering, and the entire work is being carried out exclusively by convicts, who have just completed the building adjoining intended as the new residence for the commandant of the School of Military Engineering.

The Office of Works.—A large addition to the duties performed by her Majesty's Office of Works is to be effected at the commencement of the next financial year. All the Custom-houses in the kingdom will then be placed in the charge of the Commissioners of Works, the separate "Works" establishment for the Customs being abolished. We believe that all British Consulates will also be looked after by the Office of Works, which cannot fail to be an advantageous arrangement. Of course the increased duties will necessitate the employment of a larger staff, but the result will probably be a saving of expense as well as greatly improved administration.—*Globe.*

Penzance Filter-Bed Works.—At the new waterworks in progress for Penzance, one of the walls of a new filter-bed has failed, and led to much discussion and anxiety. According to the report of a second engineer called in to report, a large sum of money must be spent to set matters right.

The Late Mr. William Young.—We hear with regret of the death of this gentleman. He was a pupil of Mr. Thomas Wright, of Manchester; he erected three churches in Lancashire for a late Earl of Ellesmere, and was architect of town-halls at Chertsey and Ashton-under-Lyne. Mr. Young was one of the earliest members of the Architectural Association, and author of a "Key to the Metropolitan Building Act" for 1855. He was a partner in the firm of Pownall & Young, and afterwards chief assistant to Mr. Street. He died in penury at Bradford last Friday, 12th inst., and has left a widow and five young children entirely destitute.

The Desired Harbour at Dungeness.—A Lloyd's telegram from Lydd, near Dungeness, says the Congo, Swedish barque, from Newcastle, bound to Lisbon, with coals, went ashore at No. 2 Battery. The crew, nine in number, took to the ship's boats, which capsized, and eight were drowned. The vessel will be a total wreck. The cry for a harbour at Dungeness becomes louder and louder. The coast here is described as a fearful graveyard. The perpetual sacrifice of human life there is quite a crying sin. The harbour that was proposed at Dungeness, and which might be cheaply formed (it is now a natural cove), would be an unspeakable benefit to shipping and a magnificent defence.

French Industry.—Mr. Frederick Brittain, of Sheffield, who was deputed by the Associated Chambers of Commerce to report on the wages in France in the iron and hardware trades, the hours of work, cost of levy, &c., has just issued his report. He considers that the wonderful prosperity of the country is to be attributed chiefly to the sobriety, frugality, and untiring energy of the artisans and agricultural labourers, who usually contrive to save something out of their small wages. He attaches great importance to the damaging effect of extreme wages and short hours in this country, as having enabled French competitors to outstrip us.

Oak Pulpit, Christ Church, Woburn-square.—A fine oak pulpit has just been made by Mr. Harry Hems, of Exeter, for Christ Church, Woburn-square, London. It is designed in the Perpendicular style by Mr. Henry Hall. The church being a large one, and of peculiar construction, the proportions of the pulpit are greater than those now commonly used in churches. The handrail is carved at its terminations, and is carried by wrought-iron standards, the work of Mr. Fred. M. Rice, of St. Sidwell's, Exeter.

Projected City Improvements. — The vacant piece of ground at the corner of New Bridge-street, Blackfriars, formerly the site of a palace built by Henry VIII. (being part of the Bridewell estate), is shortly to be offered for sale by tender. This is part of some land reclaimed from the river in 1793, and is, by a special Act of Parliament, free from rates. The new thoroughfare projected by the Corporation through their recently-acquired property, on the site of the late gasworks, will, when completed, effect another great change in this locality.

Telegraph Poles and Wires.—Telegraph poles and wires have been so completely condemned that it seems but a question of time when their abolition will be accomplished. They have been condemned as an element of danger to human life, and now the gales and rains have condemned them as not only unsafe, but extravagantly costly; so that on the score of economy we may (according to the *Gardener's Magazine*) expect that all aërial wires will soon be replaced by an underground service, to the advantage of the public in every sense.

A City Improvement.—The Commissioners of Sewers are about to effect an important improvement in Long-lane, which is now becoming one of the principal thoroughfares east and west. The old *City Press* premises at the corner, opposite Aldersgate-street Station, are coming down, and the new building on the site is to be set back considerably. It is understood that other improvements are likely to be effected, the result of which will be a clear line of premises set back from Aldersgate-street Station to the corner opposite the Meat-market.

Alexander Smith & Co.'s Copper "Reflector" Stove.—The name almost explains the construction. The patent consists in this, that around the grate is a facing of bright copper, and certainly the amount of heat gained by the reflection is very considerable.

Wesleyan Chapel, Gloucester, Competition.—Fifty-four architects, submitting sixty-two designs, competed for the above chapel. The inverse mode of selection,—viz., weeding out those that would not do,—brought the number down to ten. These again were reduced to four, out of which number the designs submitted by Mr. Charles Bell, of Union-court, Old Broad-street, was finally selected. The chapel is to cost 5,000*l*. The accepted design is Italian in character.

The Victoria (Philosophical) Institute held a meeting on Monday evening; the Rev. R. Thornton, D.D., in the chair. Several new members were elected, and it was announced that 107 had joined during the past year. A paper on "Christianity considered as a Moral Power" was read by Professor Lias, of St. David's College, Lampeter; many present took part in the discussion which ensued.

Churches for Sheffield.—At a meeting to consider the subject of church extension in Sheffield, it was resolved, on the motion of Lord Wharncliffe:—"That a fund be raised for the provision of additional churches by subscriptions extending over five years, and that the scheme of patronage, and the regulations for the administration of the fund, be prepared and submitted to a future meeting of subscribers."

Lime in the Eyes.—As a remedy for the effect of lime accidentally introduced into the eye, the use of cold sugar-water has been recommended, owing to the formation of a compound of lime and sugar, which is without any action upon the eyes. A drop of sweet oil is another remedy.

TENDERS

For St. Andrew's Church, Upper Norwood. Messrs. Edward Power & Wheeler, architects. Quantities by Mr. Thomas M. Deacon:—

	Church.	Lecture Hall.	Gallery.
Bracher & Son	£7,315	£1,943	£419
Smale	6,604	2,004	354
Fish	6,500	2,007	431
Merritt & Ashby	6,537	1,984	318
Brass	6,500	1,973	314
Sewell & Son	6,490	1,950	310
Newman & Mann	6,435	1,756	306
Bowyer & Son	6,243	1,856	253
Dove, Brothers	6,175	1,909	200
Bayes, Brothers, & Allen	5,447	1,655	267
Aitchison & Walker	5,396	1,530	284

For the first section of the Maidstone Borough drainage. Mr. Lewis Angell, engineer. Quantities by Mr. D. W. Young:—

Bugbird	£19,470 0 0
Ball & Gammon	14,400 0 0
Cooke & Co.	13,730 0 0
Marshall	13,555 0 0
Dickinson	13,529 0 0
Leslie, Jeyes, & Co.	13,433 19 5
Neave (accepted)	12,363 9 0
Prout (withdrawn)	9,775 0 0

For erecting workshop at Hackney, for Mr. Soderham:—

Jarvis & Sons (accepted).

For erection of schools and teachers' residences, Yeoford, North Devon, for Crediton School Board. Mr. Charles Pinn, architect. Quantities by the architect:—

Berry	£1,880 0 0
Chick	1,813 0 0
Dart (accepted)	1,800 0 0
Ellis & Pardon	1,676 12 0
Durke	1,575 0 0

For the erection of schools for 200 children, at Kyo, and schools for 200 children, and master's house, at Oxhill, for KyoLaws School Board, Durham. Messrs. John Smith & Son, architects. Quantities by Mr. George D. Irwin:—

	Kyo.	Oxhill.
Wright	£2,444 14 0	£3,613 1 3
Turnbull	1,938 0 0	2,965 0 0
Burton	1,910 0 0	2,963 5 0
Hunter	1,919 5 7	2,871 9 6
Westgarth	1,747 4 10	2,878 2 9
Armstrong	1,891 9 5	2,791 5 3
Young	1,771 9 0	2,715 15 0
Robson & Trumble	1,752 8 0	2,653 10 0
Hurst & White	1,750 19 0	2,641 3 0
Ward, Robinson, & Ward	...	2,523 8 0
Routledge, Colpitts, & Gibson	1,555 18 8	2,429 16 2
G. Westgarth	1,506 17 9	2,406 15 4
Forster	1,511 11 0	2,375 6 0
Eltringham & Gibson	1,563 3 8	2,311 0 3
Mordar & Gibson	1,558 2 1	2,300 7 5
Gibson, Heslop, & Surtees	...	2,263 9 5
Forster & Gibson	1,415 3 6	

For house to be erected on Putney-heath, for Mr. Walter Hudson. Messrs. Lee, Brothers, & Pain, architects. Quantities supplied:—

Smith	3,998 0 0
McLachlan & Sons	3,875 0 0
L. H. & R. Roberts	3,773 0 0
Pain	3,735 0 0
Adamson & Sons	3,615 0 0
Avis & Co.	3,480 0 0

For new premises for the Bedford Volunteer Fire Brigade. Mr. John Usher, hon. architect:—

Haynes	£347 0 0
Potter*	345 0 0

* Reduced and accepted at £330.

For the erection of factory, dye-house, and foreman's dwelling-house, at Jamaica Level, Bermondsey, for Mr. J. T. Daintree. Messrs. George Elkington & Son, architects. Quantities supplied:—

Cooke & Green	£9,977 0 0
Batteraley & Son	9,945 0 0
Rider & Son	9,898 0 0
Woodward	9,634 0 0
Dabbs	9,469 0 0
Patrick	9,465 0 0
Sheppard	9,290 0 0
Downs & Co. (accepted)	9,060 0 0

For stabling, &c., for the London General Omnibus Company, Limited, at Athol-street, Bromley, Bow, under the superintendence of Mr. Peter Tosh:—

Brealy	£5,655 0 0
Gould & Brand	5,090 0 0
Johnson	4,962 0 0
Bayes, Brothers, & Allen	4,673 0 0
Nightingale	4,456 0 0
Matlock, Brothers	4,373 0 0
Crabb	4,300 0 0
Hunt	4,330 0 0
Judd & Hawkings	4,149 0 0
Aitchison & Walker	5,105 0 0
Prebble & Co.	4,002 0 0
Curtis & Ross	3,990 0 0
Mason	3,895 0 0
Beal	3,825 0 0

For stables at Goldhawk-road, Shepherd's Bush, for the General Omnibus Company. Mr. P. Tosh, architect. Quantities by Mr. Bolton:—

Hawks	£3,800 0 0
Cowland Bros.	3,777 0 0
Crabb	3,450 0 0
Watson	3,240 0 0
Gould & Brand	3,089 0 0
Crockett	3,084 0 0
Steed Bros.	2,942 0 0
Beale	2,740 0 0
Mason & Bristy	2,637 0 0
Perkins	2,570 0 0
Mattock Bros.	2,513 0 0
Prebble & Co.	2,484 0 0
Aitchison & Walker	1,855 0 0

TO CORRESPONDENTS.

R. A.—R. P.—J. J. & Sons.—C. M.—J. H.—W. F. D.—G. A. B.—C. C.—S. L.—S. M. P.—F. B. & B.—C. B.—J. S. & Son—W. D. & Co—L. & P.—T. M. D.—H. K.—F. P.—J. U.—J. M. M.—H. P.—P. de K. A. B.—M. (no).—H. S. C. (next week).

We are compelled to decline pointing out books and giving addresses.

All statements of facts, lists of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

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Advertisements cannot be received for the current week's issue later than THREE *o'clock p.m. on THURSDAY.*

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